

Consumers' Research Bulletin



August 1953

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Consumers' Research Bulletin

OFF THE EDITOR'S CHEST

SOMETHING new has made its appearance in the motion picture field during the past year. The new development is generally referred to as 3-dimensional or 3-D pictures. There are several techniques used. One of the first to reach the public was Cinerama which uses a huge screen and three projectors with stereophonic sound that provides striking high-fidelity musical reproduction. The production entitled *This is Cinerama*, which received high praise from the critics for the magnificent scope and realistic beauty of the various subjects projected, was a collection of short topics such as those that might be shown at a newsreel theater. The audience participation in the downward sweep of the first picture showing the progress of a ride in a roller coaster was so complete that many a skeptical adult clutched his theater seat as the coaster car started to dip, to reassure himself that he was not actually about to descend at breathless speed with the shrieking occupants on the long swoop down the track.

The other 3-D pictures have, for the most part, required the use of polarized glasses. These consist of two pieces of "polaroid," a plastic film, fitted into a cardboard frame. They do not stay in position well, and some people find them annoying to wear. The first 3-D full-length pictures that have been widely shown throughout the country include *Bwana Devil*, *Man in the Dark*, and *House of Wax*. Although most motion picture exhibitors reported good business at first, the consensus appears to be that the early large attendance was due chiefly to curiosity regarding a visual novelty, and that "repeat business" will not be satisfactory unless the quality of the films improves. As readers who follow CR's motion picture ratings can easily check, criticism of the early 3-D pictures has been largely unfavorable.

The huge screen and three separate projection booths system used for Cinerama is so expensive that it is expected that use of the technique will be limited to big city theaters. The show has played to capacity crowds in New York City for many months and is also running in Los Angeles and Detroit.

Another system using a curved screen wider than normal, is called Cinemascope, the trade name adopted by 20th Century-Fox. This is described as producing the illusion of three dimensions because it allows the spectator to see the spread-out picture with wide-angle

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Consumers' Research functions to provide unbiased information on goods bought by ultimate consumers. For their benefit (not for business or industry) and solely with the funds they provide, CR carries on tests and research on a wide variety of goods, materials, and appliances, and publishes the findings in CR Bulletin. Consumers' Research is a non-profit institution, and is organized and operates as a scientific, technical, and educational organization.

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★★★For a brief cumulative index of the 1953 BULLETINS preceding this issue, see page 16.

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The Consumers' Observation Post

AMERICAN MEN have a decided preference for casual, comfortable clothing that has made them the despair of the clothing trade. It is, however, admitted, by trade editors and writers, that the American male cannot be coerced into giving up slacks, sport coats, and loose-fitting sport shirts in hot weather. The trend toward comfort has gone so far that one columnist warns the industry that it will be out of the summer clothing business within two decades unless something is created for hot-weather wear to make men keep their coats on. Among consumers there will be little sympathy with this point of view. Tourists to Havana who have become acquainted with the beautifully tailored white linen "Guayabera" shirt that is worn as a combination coat and shirt over dark trousers in the best hotels and night clubs will see no future in the idea of adding a coat to their summer dress wardrobe.

* * *

KITCHEN MIXERS are sometimes a temptation to a man of the household who wishes to use the motor to run some home workshop device, such as a buffer, a sander, or in connection with a paddle bar for paint stirring. There is on the market one kit which provides such attachments for use in connection with a food mixer. Two mixer manufacturers when queried on the desirability of having their particular appliances used in such fashion, warned against it. One pointed out that electric motors used for sanding and buffing were of much heavier construction and had a higher power rating than the one in his particular food mixer; the other simply recommended using only the attachments, such as the juice extractor, especially adapted for use with that particular make.

* * *

THE NEW VINYL PLASTIC FLOOR COVERINGS are popularly supposed not to need waxing; in fact, reports Soap and Sanitary Chemicals, it is difficult to apply a floor wax of the water-emulsion type to some of these floor coverings. On the other hand, this journal reported that waxing is considered necessary by some householders to retain the plastic's gloss and to protect the floor covering from scratching and marring. CR has scheduled tests of these coverings for the coming year.

* * *

DRIVE-IN THEATERS, which are rapidly increasing in number throughout the country, may call for some changes in automobiles in the future. Cars are not at the present time designed for maximum convenience in movie viewing, reports Business Week. Tinted windshields, for example, make black and white films seem blurred and out of focus; colored films, weird and unnatural. Sun visors should be adjustable, for the fixed type reduces the visibility of movies for back seat sitters. Horns should be put out of operation by turning off the ignition in order to eliminate sudden blasts caused by careless elbows at the most dramatic moment of a film. Windshield wipers should be operated from the battery rather than operate only when the motor is running, since far too many engines are active in drive-in theaters when rains descend unexpectedly during a performance. Whether drive-in patrons will have an influence on the design of future cars will depend on the extent of future expansion of this comparatively new but growing branch of the entertainment industry.

* * *

A MINERAL SURFACE COATING called Aquilla, distributed by Prima Products, Inc., has been the subject of a recent Federal Trade Commission action. After extensive investigation, the Federal Trade Commission has

ordered the company to discontinue advertising claims that Aquella operates on an entirely new principle in the control of water seepage through porous masonry; that the product will waterproof or prevent penetration of water through the walls of underground fortifications such as those constructed on the Maginot Line; that the application of Aquella will render waterproof or watertight below-grade masonry surfaces or structures that are porous. As CR pointed out in May 1946, the product was essentially white Portland cement, calcium carbonate, and quartz, all commonly used ingredients of cement water paints. The consumer who has a problem of water seepage through cellar walls might just as well use a mixture of 1 part Portland cement and 2 parts dry sand (screened through a No. 16 sieve), which is considerably cheaper (and sometimes works fairly well, if conditions are not too unfavorable).

* * *

IN PURCHASING CHILDREN'S SHOES, it is important to select a good store. In an excellent article on children's shoes in the Journal of the American Medical Association, Dr. Louis Starr of Brooklyn points out that shoes should not be bought by mail or off the counter without fitting. A full range of sizes, lengths, and widths must be kept in stock or be readily available by any store that merits continued family patronage. There should be no fluoroscope for fitting, since a competent shoe salesman can achieve a good fit, and Dr. Starr takes the position that no regulations can make safe the use of the shoe fluoroscope. An experienced salesman who knows his stock, and who is willing to give as much time as may be necessary, is essential. For the child who is difficult to fit, it will be wise to shop for shoes during slack hours when neither the parent nor the fitter is hurried.

* * *

ALUMINUM FOIL is being used in oven cooking in many different ways. One subscriber calls attention to a very real danger that occurred when his wife was roasting a large turkey wrapped in aluminum foil. At one stage in the roasting, the foil was to be removed to promote browning, and in the process the turkey was not removed completely from the oven. In opening up the foil, contact was made with the heating coil, producing an ominous flash and a severe shock to the operator. Such an accident can, of course, be avoided, with care, but it may well serve as a warning that the oven should be turned off or that food which is wrapped in aluminum foil should be taken out of the oven before the foil is manipulated.

* * *

AEROSOL HAIR LACQUERS are appearing on the market in increasing numbers. In fact, competition has started a small-scale price war, according to Chemical Week. Newspaper stories of possible fire hazard in using the products that made an appearance last winter nearly put a severe crimp in the product's sales. The fallacy of the tests given the lacquers was demonstrated by competent experts who proved that there was little fire hazard if the sprays were handled properly, in accordance with careful directions on the labels. In a number of cities throughout the country, fire departments which had imposed bans on the lacquers became convinced that the use of aerosol hair lacquers was not a fire hazard. There are two types available at the present time: the water-soluble wave lacquers based on the use of polyvinyl pyrrolidone; and the shellac type which uses shellac and methyl methacrylate or some other resin as essential ingredients.

* * *

SILK SHANTUNG dresses cut entirely on the bias are sometimes unwearable when they come from the dry cleaner. The difficulty is caused by the fact that in the dry-cleaning process, they may shrink slightly and become distorted so that they no longer hang evenly, according to tests made by the National Institute of Drycleaning. The fabric pulls slightly at the side, front, and back skirt seams. The shrinkage may be as little as 1 percent in one direction, and normally this is not enough to be noticeable, but when the garment is cut on the bias, it will be enough to make it hang

(The continuation of this section is on page 53)

CR tests 14 different makes
—finds only one unsatisfactory



ELECTRIC IRONS

CHANCES are that the first hand irons were stones. Antique irons made of cast iron from as far back as 1800 show that the general shape of the present-day iron was evolved at about that time. The earliest electric iron was marketed about 1900. Since then many improvements have been made, principally in the direction of making the irons more convenient to use. The automatic thermostat which shuts off the electricity above a certain temperature and turns it on again as the iron cools has probably been the great contribution of the engineers to electric irons. Very few hand irons now in wide sale are without some sort of automatic temperature-regulating device.

The popularity of the new synthetic fibers has made a heat control more desirable than ever. In fact, an iron *must* have a thermostat that gives reliable control at the lower temperature settings if it is to be used at all safely on some of the new synthetic fabrics. Almost every woman today has had at least one unfortunate experience when the fabric of a favorite blouse or slip melted right under the iron and ruined the garment. Most of the irons tested had the scale on the thermostat marked with the names of the fabrics such as rayon, silk, cotton, wool, and linen. The thermostat of the *General Mills* iron was also marked to indicate a temperature for each fabric setting.



The Westinghouse No. 4D-513. The open-end handle is claimed to permit easy ironing. One of three users in CR's tests did not find it especially convenient.



General Mills GM IBB. Temperature markings as well as fabric markings appear on the thermostat control.

One of CR's tests was to check the proper functioning of the heat controls of the irons. During the warm-up period most irons have a tendency to overshoot the temperature setting before settling down to a steady temperature. The temperature difference between the "on" and the "off" actions of the thermostat, particularly at the low setting, should not be over 50°; a higher "range" or span of temperature has the possibility of damaging the fabrics being ironed. CR's tests found that in a good many of the irons the temperature was controlled to much smaller limits than the recommended 50°. In CR's performance tests, the fluctuations in soleplate temperatures with thermostat on-and-off action were recorded at rayon, wool, and linen settings.

It should be noted that the markings on the thermostat control, whether fabric names or temperatures, should not be relied on completely when ironing. Much will depend on how fast you iron and how damp the particular fabrics are. It is especially desirable to take care when using an iron for the first few times to see if the marked settings seem to have a reasonable relationship to the temperatures you find suitable for use in ironing that fabric.

Aside from the temperature control, a good iron, according to the most recent survey of consumer opinion reported by the household equipment specialists in the Bureau of Human Nutrition and Home Economics, should deliver sufficient heat and should have a soleplate with special indentations on the sides for ironing under buttons. Other desirable features that were named were soleplates with beveled edges and a narrow point for ironing ruffles and a suitable back or side rest. The iron handles should

be of a size and shape comfortable for the hand. The handle should not get hot and should be far enough away from the body of the iron to remove any danger of burns to fingers. Some people like a thumb rest on the handle.

At the Vermont Experiment Station, tests of ironing equipment were made that showed that light-weight irons of about 3 to 3½ lb. were best for sit-down ironing. The Vermont studies also showed the advantage of a relatively low handle. Since a low handle is a contradiction to the requirement of a substantial distance between the handle and the body of the iron, it would appear that it would be desirable to have some sort of an insulator over the entire top surface of the iron to protect the hand from the heat.

None of the surfaces likely to be touched (except momentarily) in the use or adjustment of an iron, such as the handle and the thermostat control, should get too hot for comfort. Generally this means that for non-metallic materials the temperatures should not exceed 150°F. CR measured the temperatures of five different points of the irons after they had been operating at their highest setting for 30 minutes. The thermostat control of all but one of the 14 irons was hotter than the 150° limit (the *General Electric* was the exception; the *American Beauty* was next best), after the iron had operated at the high setting for 30 minutes, and on 9 of the 14 irons exceeded 200°F. The nine were the *Dominion*, the *Handyhot*, the *Hoover*, the *Kenmore*, the *Mary Proctor*, the *Sunbeam*, the *Universal*, the *Wards No. 2612*, and the *Westinghouse*. The worst iron in this respect was the *Kenmore 6255*; the temperature of the thermostat control of the *Kenmore* reached almost 300°.

CR's study included appropriate tests to de-

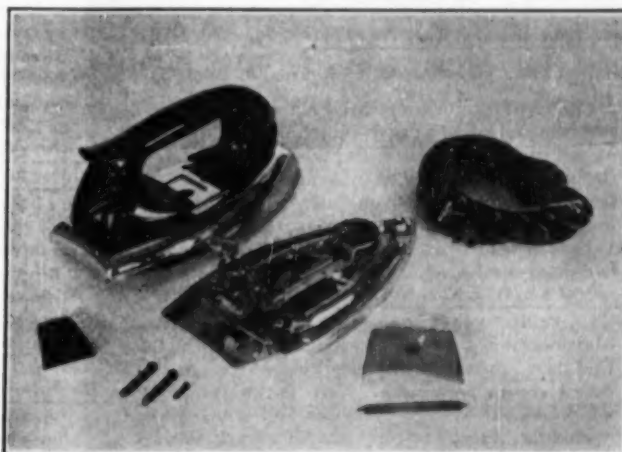
termine the electrical characteristics of the irons, and other examinations to evaluate their mechanical features and performance. The stability of the iron on its heel rest was determined by placing the iron on a board which was then tilted to a 10° angle.

In order to get an idea of how convenient the irons were to use, three women selected as representing typical home ironers ironed with each iron a shirt, a rayon slip, a child's dress, curtains, napkins, and a tablecloth, all items likely to be found in a normal family's wash. All of the women expressed a decided preference for the lighter irons and for thermostat controls that were easy to read and operate. In general, fabric markings on the thermostat controls were judged satisfactory; temperature markings were

considered desirable, but not wholly necessary.

All the irons passed the high-voltage (breakdown) test which gives an indication of the probable future safety of the electrical insulation, with the exception of one sample, *Kenmore* (a second *Kenmore* sample passed the test satisfactorily). All irons but the *Sunbeam Ironmaster* also passed the voltage breakdown test under operating conditions and after exposure to high humidity for at least 24 hours. In the tests for electrical current leakage (an indication of possible shock hazard), all irons were satisfactory as received and at the maximum operating temperature; one *Proctor* iron presented a slight shock hazard after storage at high humidity, but a second *Proctor* sample passed the test satisfactorily.

General Electric No. 139F23 disassembled. This iron has one kind of heating unit construction—a cast-in calrod heater unit.



The Century Glide-O-Matic disassembled. This illustrates another kind of heating unit construction—a helical wire heater cemented into a spiral groove in the soleplate.

Ratings

All irons tested were for a-c operation only. None of the irons weighed more than 4 lb.; the lightest weighed 2½ lb. (or 30% less). All had permanently attached cords at least 5½ ft. long (the minimum length needed when the outlet is on the wall and faced by the user). All the irons were stable on their heel rests (did not tip over when tilted 10 degrees). As already noted, the thermostat control of all the irons but one, the *General Electric*, became too hot. Tests were made on two samples of each brand, except as noted.

A. Recommended

American Beauty, Cat. No. 33AB (American Electrical Heater Company, Detroit 2) \$13.95. 1000 watts. Aluminum alloy soleplate. Weight, about 3¼ lb. No fabric or temperature marking on thermostat control, judged a disadvantage, though "thermoscope" (dial thermometer) had fabric markings, and the arrangement was liked by some users.

Good performance. Relatively long (10½ min.) warm-up time. Excessive overshooting in warm-up period. Very little fluctuation of temperature.

Fairly convenient in use. 3

General Electric, Cat. No. 139F23 (General Electric Co., Bridgeport, Conn.) \$12.95. 1000 watts. Aluminum alloy soleplate. Weight, about 2½ lb. Had pilot light to indicate when current was on.

About average performance. Very fast warm-up (4 min.). About average overshoot and temperature fluctuation, except on one sample at low setting where temperature fluctuation was judged excessive (70°).

Convenient in use. Only iron tested which did not get too hot (over 150°F) at the under side of the handle and at the thermostat control after 30 min. of operation at high setting. 3

General Mills, Model GM 1BB (General Mills, Inc., Minneapolis 13) \$14.95. 1100 watts. Chrome-plated iron alloy soleplate. Weight, about 3¼ lb.

Good performance. Very fast warm-up. Very little overshoot. Little fluctuation of temperature. Heel of iron cooler than toe and center. Likely to be less satisfactory than other A irons for "heavy" ironing. **Convenient in use,** but side rest was judged inconvenient and a possible burn hazard, by some users. 3

Mary Proctor Never-Lift, Model 991 (Proctor Electric Co., Third St. and Hunting Park Ave., Philadelphia 40) \$13.95. 1150 watts. Aluminum alloy soleplate. Weight, about 3¼ lb.

Good performance. Relatively long warm-up time. Very little overshoot (in fact, iron was hotter after being in use a while). Little fluctuation of tempera-

ture. Some shock hazard present under high-humidity conditions on one sample.

Convenient in use, but thermostat control knob became too hot (210°F). 3

Westinghouse, Cat. No. 1D-513 (Westinghouse Electric Corp., Mansfield, Ohio) \$12.95. 1000 watts. Aluminum alloy soleplate. Weight, about 3¼ lb.

Good performance. About average warm-up time. Little overshoot and little fluctuation of temperature.

Convenient in use. One user out of three found open-end handle not to her liking. Thermostat control knob became too hot (210°); otherwise a good iron. 3

B. Intermediate

Wards Automatic Iron (Montgomery Ward's Cat. No. 86-2612) \$7.75, plus postage. Rated 1000 watts; measured 900 watts. Aluminum alloy soleplate. Weight, about 2¾ lb.

Good performance. About average warm-up time. Very little overshoot. Little fluctuation of temperature on one sample, considerable on another.

Convenient in use, but users had to exercise care in setting thermostat control so as not to touch exposed metal, and control itself became much too hot (240°F). 1

Century Glide-O-Matic, Cat. No. 1C-01-CSA, App. No. 8304 (Century Product Works, Inc., 507 W. 56 St., New York 19) \$9.95. 1000 watts. Aluminum alloy soleplate. Weight, about 3 lb.

About average performance. About average warm-up time, overshoot, and temperature fluctuation.

Fairly convenient in use. Tip of soleplate turns up, which is judged inconvenient. Users had to exercise care in setting thermostat control so as not to touch exposed metal. Handle became too hot (170°F). 2

Dominion, Model 1011 (Dominion Electric Corp., Mansfield, Ohio) \$9.95. 1000 watts. Aluminum alloy soleplate. Weight, about 3¼ lb. Cord readily moved from one side to other for right or left-hand operation.

About average performance. About average warm-up time, overshoot, and temperature fluctuation.

Convenient in use, but some users objected to weight. Thermostat control knob became much too hot (225°F). 2

Kenmore, Model 116.6255 (Sears, Roebuck & Co.) \$9.95, plus postage. 1000 watts. Aluminum alloy soleplate. Weight, about 3½ lb. Had pilot light to indicate when current was on. One of three samples failed early in test, possibly because of breakage of copper ribbon connections to thermostat.

Good performance. Very fast warm-up time. Little overshoot and fluctuation of temperature.

Convenient in use, but users objected to weight. Thermostat control knob became much too hot (reached nearly 300°F after 30 min. of operation on high setting). 2

Handyhot, Cat. No. 1175 (Chicago Electric Mfg. Co., 6333 W. 65 St., Chicago 38) \$11.25. Rated 1000 watts; measured 900 watts. Aluminum alloy sole-

plate. Weight, about 3 lb. Had pilot light to indicate when current was on.

Only fair performance. Very fast warm-up. Little overshoot. Excessive temperature fluctuation.

Convenient in use. Thermostat control became too hot (215°F). 3

Hoover, Model 010 (The Hoover Co., North Canton, Ohio) \$13.95. Rated 1000 watts; measured 950 watts. Aluminum alloy soleplate. Weight, about 3¼ lb.

About average performance. About average warm-up time and temperature fluctuation. Excessive overshoot. On one sample, thermostat was incorrect (temperatures too high for fabrics shown on markings of thermostat control).

Convenient in use. Thermostat control knob became too hot (210°F). 3

Sunbeam Ironmaster, Model A-9 (Sunbeam Corp.; formerly Chicago Flexible Shaft Co., Chicago 50) \$14.95. 1000 watts. Aluminum alloy soleplate. Weight, about 2¾ lb.

About average performance. Relatively long warm-up time. Very little overshoot. About average fluctuation of temperature. Failed breakdown test under high-humidity conditions; otherwise would have received an A rating.

Convenient in use. Thermostat control knob became too hot (205°F). 3

Universal Stoke-Sav-r, No. EA-B1205 and EA-1205

(Landers, Frary & Clark, New Britain, Conn.) \$13.95. 1100 watts. Aluminum alloy soleplate. Weight, about 3¼ lb. Had largest soleplate area of irons tested.

Good performance. About average warm-up time. Excessive overshoot. Very little fluctuation of temperature on one sample, considerable on another. Temperatures erratic and not repeated during test runs, indicating some fault of thermostat on one sample.

Convenient in use, but extra-sized soleplate was found an inconvenience for ironing ruffles. Thermostat control knob and handle became too hot (210° and 170°F). 3

C. Not Recommended

Wards Copper-Clad Automatic (Montgomery

Ward's Cat. No. 86-2665) \$10.75, plus postage. 1000 watts. Iron alloy soleplate. Weight, about 3¾ lb. Had pilot light to indicate when current was on.

Only fair performance. Relatively long warm-up time. Excessive overshoot and fluctuation of temperature.

Convenient in use, but some users objected to weight. Thermostat control became too hot (190°F). 2

Ironing Synthetic and Artificial Fabrics

THE thermostat control on most electric irons are not marked in temperatures in degrees Fahrenheit, but give fabric names at each setting. The control on a typical iron will be marked with the settings for rayon, silk, wool, cotton, and perhaps linen and "low rayon" also. The rayon setting on most irons indicates a temperature suitable for both acetate and rayon fabrics, for until December 1952, when the F.T.C. ruled to the contrary, most acetate and rayon fabrics were labeled "rayon." If an iron has a low rayon and high rayon setting, acetates should be ironed at the low rayon setting.

The temperatures usually represented by the rayon, silk, cotton, and linen settings on an iron are:

Table I

Rayon.....	225° to 325°F	Average 275°
Silk.....	275° to 400°F	" 350°
Cotton.....	350° to 475°F	" 425°
Linen.....	350° to 525°F	" 450°

Any iron is likely to be used for pressing or ironing one or more of the nine man-made fibers now commonly used for making fabrics, acetate, rayon, nylon, Dacron, dynel, Orlon, Vicara, Acrilan, and Fiberglas. Only one of these fibers,

Fiberglas, is "heatproof"; all the others are softened and damaged by excessive heat. On this account it is important that the new synthetic fabrics are ironed at the proper temperatures, low enough to avoid damage.

According to the best information that CR was able to obtain, suitable ironing temperatures for the man-made fabrics are:

Table II

Acetate.....	225° to 270°F
Acrilan.....	275° to 300°F
Dacron.....	250° to 275°F
Dynel.....	less than 240°F
Fiberglas.....	do not iron
Nylon.....	250° to 275°F
Orlon.....	250° to 275°F
Rayon.....	300° to 400°F
Vicara.....	250° to 350°F

If a fabric is a blend of two or more fabrics, it should be ironed at the lowest of the temperature ranges indicated for the several fabrics. The housewife who will keep at hand the table of the safe ironing temperatures of the various fabrics shown here at Table II and the ironing temperatures represented by the setting on her iron shown at Table I is likely to run little risk of damaging fabrics by too hot an iron.



Synthetic Detergents

DURING the past five years the number of synthetic detergents sold to the general public has grown steadily, offering the consumer a variety of makes and brands equal to that of soap. The consumer, however, is often confused because of the numerous products to choose from and because of the misuse of the word detergent, which, by definition, means a cleansing agent and hence includes the various kinds of soap flakes and soap powders. To distinguish between the two types of detergents, synthetic detergent is the name commonly given to a cleanser that is not based on soap. Unfortunately, most manufacturers do not label these products as synthetic detergents, and the consumer may not realize that the product he is using is not a soap. If the label states that the product is "not a soap" or claims "no hard water scum," it will usually be safe to assume that the product is a synthetic detergent. Several products just recently put on the market include the word "Detergent" as part of the name.

Synthetic detergents, like soaps, are available for either light-duty or heavy-duty laundering, as well as for general cleaning. Products such as *Dreft*, *Glim* (liquid), *Joy* (liquid), *Lux Liquid*, *Swerl*, and *Vel*, correspond to mild soaps, and are classified as mild synthetic detergents and are recommended for washing fine fabrics. The liquid products are generally intended for dish-washing, but can also be used for washing woollens and fine fabrics. To meet the need for "heavy-duty" washing of clothes and ordinary or coarse fabrics, such products as *All*, *Breeze*, *Fab*, *Felso*, *Spin*, *Surf*, and *Tide* have been developed. Like regular soap, these can be used

for washing most fabrics, but they are likely to fade delicate colors. Some produce less suds than others, and are therefore better for certain types of automatic washers.

While both soap and synthetic detergents can be used for the same general purposes, there is one outstanding difference in their properties. Soap, because of its chemical nature, is most effective in warm or hot soft water. Synthetic detergents, on the other hand, will perform satisfactorily even in cold hard water.

The report which follows discusses four products which are new on the American market, *Kirkman*, *Oxydol*, *Rinso*, and *Super Suds*. These are familiar names of washing soaps, but the owners of these trademarked names now apply them also to synthetic detergents. So that the performance of the detergents listed herein could be compared with those in the report which appeared in the March 1953 BULLETIN, *Tide* was included as a reference, or "control."

Effectiveness in soil removal and tendency toward minimum soil deposition were evaluated by washing standard soiled cotton cloths in both hard and soft water, using the detergents in different concentrations.

Some of the new synthetic detergents build up so much foam in the tumbler-type washing machine that they flood the machine with suds which interfere with the washing action of the washer. While none of the products listed here are represented as low in suds-producing quality, their use in tumbling-cylinder washers may be limited because all produced high, stable, voluminous foam at moderate concentration in soft and hard water: *Kirkman*, *Oxydol*, and

Rinso gave moderately voluminous foam at low concentration in soft water, *Super Suds* showed low unstable foam; *Kirkman*, *Rinso*, and *Super Suds* gave moderately voluminous foam in hard water at low concentration, *Oxydol* gave very low foam. All contained sodium carboxymethylcellulose (sodium CMC), a chemical which helps prevent the redeposition of soil from the wash water, and a fluorescent dye, which the manufacturers add to make clothes look whiter by counteracting the yellow tint that often develops in a fabric with repeated use and washing.

A. Recommended

Oxydol Detergent (Procter & Gamble, Cincinnati)
29c for 1-lb. 3-oz. box. Soil removal: good at low and moderate concentrations. Anti-graying: very good in soft water, fair in hard water.

Rinso Sunlight Detergent (Lever Bros. Co., N.Y.C.)

Soil removal: good at low and moderate concentrations. Anti-graying: very good in soft water; fair in hard water.

Tide (Procter & Gamble) 29c for 1-lb. 3-oz. box.

Soil removal: good at low and moderate concentrations. Anti-graying: very good in soft water; good in hard water.

* * *

The following two detergents were considered slightly less effective in soil removal in both hard and soft water than the brands named above.

Kirkman All-Purpose Detergent (Kirkman & Son

Div. of Colgate-Palmolive-Peet Co., Jersey City, N.J.) 30c for 1-lb. $\frac{3}{4}$ -oz. box. Anti-graying: good in soft water; fair in hard water.

Super Suds Detergent (Colgate-Palmolive-Peet Co.)

Anti-graying: good in soft and hard water.

An Economist Comments on Free Enterprise and the Free Market

MANY of CR's subscribers, especially teachers and writers in the social sciences, are interested in the economic principles underlying the problems of consumers and their relationship to governmental authority. Such economic-minded readers will be interested to note one economist's comments on free enterprise, the system which permits the production and distribution of goods to be determined chiefly by the actions and choices of consumers buying in a "free market." We quote by permission of the publisher from a college textbook, *Introduction to Economics*, by Cecil Kenneth Brown, Professor of Economics at Davidson College, Davidson, North Carolina. (Prof. Brown's book is published by American Book Co., 55 Fifth Ave., New York City.) CR has used italics for emphasis in several places.

... If man cannot by institutional changes approximate a system that he recognizes as good, there is certainly no reason for thinking that he could achieve a good system by the establishment of the tyranny of centralized direction. Any failure of the free price system to operate according to its theory must be due ultimately to the people who live under that system, and those who directed a centralized economy would be the same sort of people. . . .

DIRECTION BY THE FREE CHOICE OF CONSUMERS

Under the free price system *the desires of people as consumers are allowed to determine the course that*

production shall take, it being considered advantageous to permit people to spend their incomes as they see fit. It is true that many persons spend their incomes in ways that others of us regard as foolish and not infrequently purchase commodities that are positively injurious to their health or even to the safety and welfare of others. Likewise it is true that producers try to influence consumption in their favor by high-pressure salesmanship, by advertising of extravagant claims, and by playing upon the fears and vanities of the populace, so that it may seriously be contended that consumers really buy what producers want them to buy and not what they would choose to buy if left alone. Despite these undeniable facts, the present arrangement is properly considered superior to the regimentation of consumption by a central authority that would presume to say what people ought to consume and that would therefore force production to follow certain lines and compel the people to use the commodities so produced and no others. *The wit and wisdom probably does not exist to decide in detail what is good for people to consume*; and even if it did exist, the saving of men from their own follies by outside direction might be accompanied by very regrettable results in the loss of opportunity to develop individuality, personality, and character. The free price system rests upon the assumption that *the individual is a better judge of what he wants than anyone else can possibly be*. If he buys things that are of no use to him, we depend upon his folly to work its own correction; if he produces things that no one will buy, we allow him to suffer the losses of his own miscalculation.

Flashlight Batteries

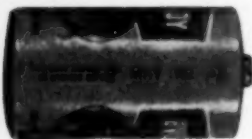
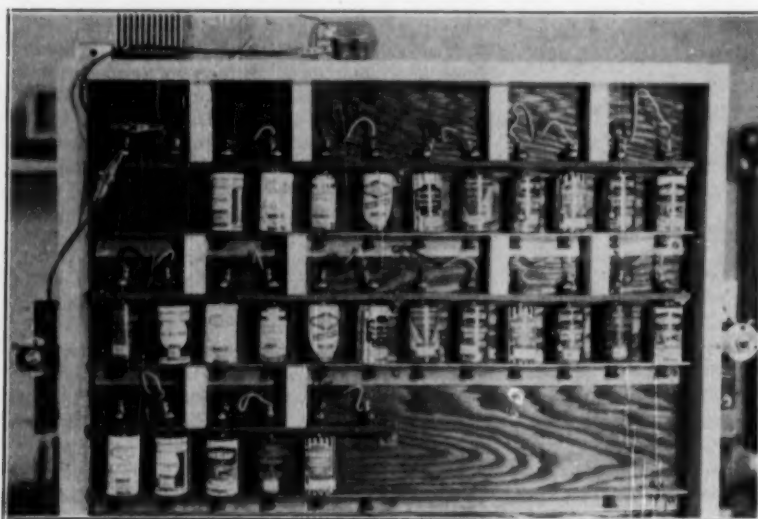
CR has recommended that manufacturers should follow the sound practice of stamping the date of manufacture on their flashlight batteries, but many flashlight battery makers have still not adopted this practice. The makers of five of the eleven batteries in CR's test did not provide expiration dating. The results of CR's tests emphasize the importance of taking whatever steps are possible in the absence of dating by the manufacturers, to buy batteries that are *fresh*, if one is to obtain batteries that will show reasonable life expectancy. Various brands were found to lose from less than 5 percent to almost 40 percent of their useful performance during a storage period of 6 and 12 months. The *Ray-O-Vacs* (undated), for instance, claimed in advertising to "stay fresh," lost about 10% of their useful life after 6 months of storage. Dated batteries should always be bought, when possible, and the date should be at least a year ahead. (Some of CR's purchases were dated 15 months ahead.)

When it is necessary to keep a small stock of batteries on hand at home or at the office for emergency use, they should be stored in a cool dry place. A refrigerator or a freezer give the

desired low temperature, but if batteries are frozen, they should be given ample time to thaw and warm up to room temperature before being put into use.

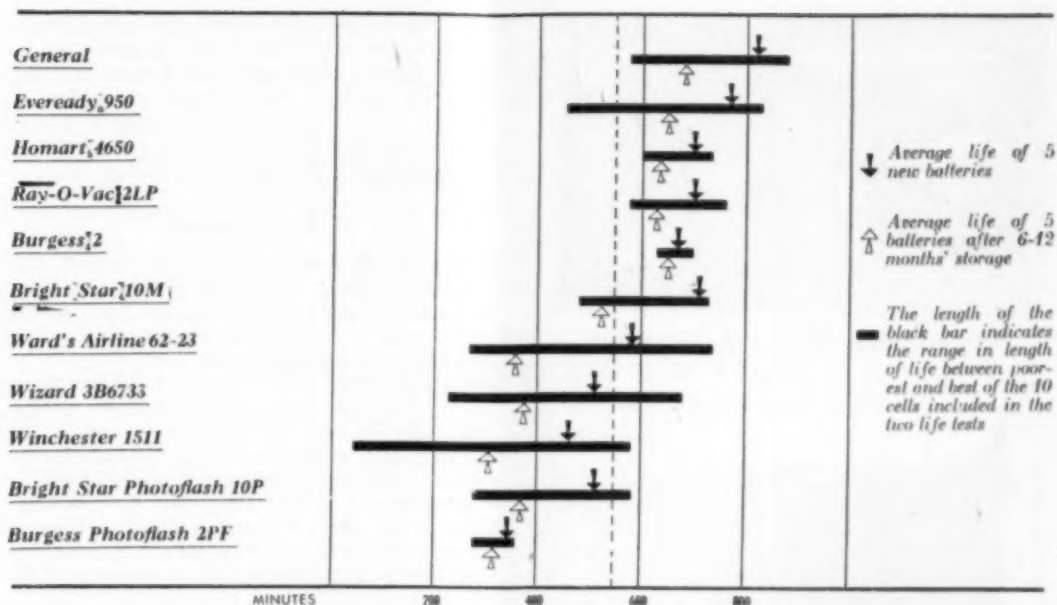
To avoid damage to the flashlight, it is a wise precaution to examine periodically every flashlight in the home, whether it is in use or not. Flashlight batteries have a marked tendency to leak or swell, or both, and unless this condition is noticed and action taken immediately, the flashlight in which they are being used may be ruined through corrosion; at best, one may be faced with the often very troublesome job of removing the batteries without damage to the flashlight case. It is often desirable to replace any batteries which are still in use well beyond their expiration dates. This advice applies particularly to the flashlight carried in the family automobile, since it may be necessary to change a tire at night, and one's safety or life itself may depend upon the flashlight's burning for a reasonable length of time when it is put to emergency use.

Seven different kinds of case construction were used for the 11 batteries tested. The *Homart* and *Ray-O-Vac* were similar in this re-



Above: "Expiration" dates are clearly indicated on the cells shown.

Left: Part of test set-up for life tests.



The chart above shows the average life of the different brands and the variability in life among the different samples tested of a given brand.

spect, and both were guaranteed to be leakproof. The *Ward's Airline* and *Wizard* were also much alike; the latter, but not the former, was also guaranteed leakproof. Interestingly, the guarantees applied only and specifically to supplying a new flashlight and replacing the faulty battery in each instance, and while D-type cells are sold mainly for use in a flashlight, a relatively inexpensive item, the manufacturers of those said to be leakproof seem quite carefully to exclude from their guarantee any effects of leakage in any other use (as in portable radios or in ohmmeters and many other instruments) where a costly repair or replacement of damaged parts might have to be made in the event one of the leakproof cells did leak (a disadvantage that CR has found common to all flashlight batteries).

Consumers' Research considers that it is quite likely that batteries, such as the *Ray-O-Vac* or *Homart*, which enclose the zinc battery cell in a thin sheet-steel casing, may offer some advantage in regard to reducing likelihood of swelling, thus of the battery's sticking in the flashlight case. There were only three brands, the *Bright Star*, *Homart*, and *Ray-O-Vac*, of which samples that had been tested did not show some signs of swelling either at the bottom or sides of the casing after nine months of shelf storage under normal room temperature conditions following

the life tests. The cases of *Ward's Airline* and the "leakproof" *Wizard* were swollen; the thin plastic outer shell has certain advantages, but evidently did not have sufficient strength to contain the pressure built up within the battery.

CR's Tests

CR's tests followed the procedure for testing "light industrial flashlight batteries" outlined in Federal Specification W-B-101b. Briefly, each of five samples of each brand was discharged through a resistance of 4 ohms for 4-minute periods at hourly intervals for eight consecutive hours in each day. The discharge cycles were repeated until the closed-circuit voltage of each cell fell below 0.90 volts. Battery life, as determined by this test, must be at least 550 minutes (9 hours 10 minutes) to meet the requirements of the Specification. Similar tests were also run on additional samples after 6- and 12-month storage intervals. Batteries purchased for the test all had an initial open-circuit voltage of 1.50 volts or higher, as required by the Specification.

It is interesting to note that the average life of three of the brands showed considerable change when compared to the results of CR's tests made



Part of test set-up for life tests on flashlight batteries.

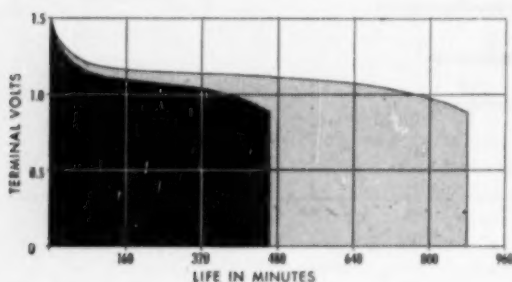


Chart showing the difference in voltage output and life between a poor and a very good flashlight battery. The dark area represents the total useful amount of light from the poor battery; the shaded area shows the greatly increased amount of light available from the good battery.

in 1950. The *Burgess* and *Ray-O-Vac* batteries had a considerably shorter life, the *General* a very much longer life, in the 1953 tests.

In addition to the nine brands specifically marketed as flashlight batteries, two brands of cells were also tested which were designed for photo-flash-bulb operation. Batteries of this kind are often purchased by consumers for use in flashlights, possibly because their higher cost leads the purchaser to believe that they must be better batteries for any use. Batteries of this type are designed to provide a high current output rather than a long shelf-life and are therefore poorly adapted for flashlight use; the tests confirmed this.

In the listings, the boldface figures in the parentheses following the values for average life in minutes indicate the numerical order of the particular brand as to life in CR's test. The average life after normal storage, as given, is an average of the results of the 6-month and 12-month storage tests. Variability, the ratio of the difference between the longest and shortest lives to the average life of the five samples, gives some measure of the care and uniformity of the

manufacturing process. Thus a particular brand showing small variability would be preferred to another brand with somewhat longer life but higher variability. An asterisk (*) indicates that one or more of the five samples of a particular brand did not comply with the specification regarding battery life. Ratings are cr52.

A. Recommended

Burgess, No. 2 (Burgess Battery Co., Freeport, Ill.) 2 for 25c. Dated. Average life—new, 670 min. (6); after storage, 650 min. (2, along with *Eveready* No. 950). Loss of capacity during shelf storage, low. Variability among samples, small.

Eveready, No. 950 (National Carbon Co., Inc., 30 E. 42 St., New York City) 2 for 25c. Dated. Average life—new, 775 min. (2); after normal storage, 650 min. (2, along with *Burgess* No. 2). Loss of capacity during shelf storage, about average. Variability among samples, small. The design of the *Eveready* 950 has been changed recently; the new cell carried a guarantee covering loss by damage to flashlights, but those observed did not bear an expiration date.

B. Intermediate

Bright Star, No. 10M (Bright Star Battery Co., 98 Getty Ave., Clifton, N.J.) 2 for 25c. Dated. Average life—new, 710 min. (3); after normal storage, 525 min. (6). Loss of capacity during shelf storage, high. Variability among samples, small.

General (General Dry Batteries, Inc., 13000 Athens Ave., Cleveland) 2 for 25c. Not dated; would otherwise merit an *A-Recommended* rating. Average life—new, 820 min. (1); after storage, 680 min. (1). Loss during storage, about average. Variability, medium.

Homart, No. 4650 (Sears, Roebuck & Co.) 2 for 25c. Not dated; would otherwise merit an *A-Recommended* rating. Average life—new, 700 min. (4); after storage, 630 min. (4). Loss during storage, about average. Variability, small.

Ray-O-Vac, No. 2LP (Ray-O-Vac Co., 212 E. Washington Ave., Madison 10, Wis.) 2 for 25c. Not dated; would otherwise merit an *A-Recommended* rating. Average life—new, 700 min. (5); after storage, 625 min. (5). Loss during storage, about average. Variability, medium.

C. Not Recommended

Ward's No. 62-23 Airline A-Battery (Montgomery Ward & Co.) 10c each. Not dated. Average life—new, 585 min.* (7); after storage, 365 min. (9). Loss of capacity during storage, very high. Variability, large.

Winchester, No. 1511 (Winchester Repeating Arms Co., New Haven, Conn.) 2 for 25c. Dated. Average life—new, 460 min.* (10); after storage, 310 min. (11). Loss during storage, very high. Variability, large.

Wizard, No. 3B6733 (Western Auto Stores) 2 for 25c. Not dated. Average life—new, 510 min.* (8, along with *Bright Star 10P*); after storage, 385 min. (7). Loss during storage, high. Variability, very large.

* * *

The results of the tests on the following two batteries are included only for their possible interest to some who might suppose them suitable for use in a flashlight (see text).

Bright Star, No. 10P (Bright Star Battery Co.) 15c. Dated. Average life—new, 510* min. (8, along with *Wizard 3B6733*); after storage, 370 min. (8). Loss during storage, high. Variability, large.

Burgess, No. 2PF (Burgess Battery Co.) 15c. Dated. Average life—new, 345* min. (11); after storage, 320 min. (10). Loss during storage, low. Variability, small.

Promicrol Developer for Film

Promicrol is a fine-grain developer of English manufacture which has been of considerable interest to photographers in this country. The manufacturer claims that it will give very fine-grain negatives with an emulsion speed "substantially equal to the accepted maximum, or in excess of it."

Good fine-grain developers have been available for a number of years, but as with many other products, an advantage or improvement gained in one characteristic results in a loss or reduction of some other desirable factor. Many fine-grain developers require that the film be exposed at its normal speed rating, or slightly less, in order to obtain the desired fine grain and good contrast. When the light is poor and it is impossible to expose the film at its normal speed rating, the film can be greatly underexposed and then overdeveloped, but this procedure usually results in a degradation of grain and contrast, the seriousness of which depends, of course, upon the degree of underexposure and overdevelopment.

As *Promicrol* is claimed to produce good negatives of fine grain, even when the film is considerably underexposed, CR compared its performance with that of two other developers of known performance, *Kodak D-23*, which is a fine-grain developer, and *Kodak D-76*, a medium-grain developer adapted to shorter than normal exposure. The film used was *Kodak Plus-X*. When the film was exposed at its normal speed, or twice its normal speed (one-half the exposure), *Promicrol* produced negatives of high quality; grain and contrast were judged to be very good. When the film was exposed at 1/16 normal exposure in daylight, and developed for approximately twice the normal development time, the negatives obtained with *Promicrol* had noticeably sharper detail — but poorer contrast — than

those obtained with *D-23* or *D-76*. (The weak contrast of the *Promicrol* negatives which were underexposed and overdeveloped was such as to require the use of high-contrast printing paper for satisfactory pictures; this is not considered a serious objection.)

Promicrol was judged to be a good developer, capable of producing satisfactory results with *Plus-X* film even when the film is very considerably underexposed. Some experimenting must be done by the user in order to get the desired results when the film is exposed under unfavorable conditions. CR believes that most amateurs would not care to use *Promicrol* for developing films exposed under normal conditions, since other satisfactory fully-proven developers are available at considerably lower cost.

It is not a good idea to shift from one developer to another; best results are achieved if one uses consistently, month after month, a developer to which one has become accustomed, and which has been found to give the desired type of performance.

Everyone who uses photographic chemicals should remember that some are very toxic. Contact of developers, particularly, with the skin should be avoided so far as possible.

A. Recommended

Promicrol Ultra Fine Grain Developer (May & Baker Ltd., Dagenham, England; available from George Murphy Inc., 57 E. Ninth St., New York 3) \$2, plus postage, for 1-qt. size. (18.2c per roll, assuming that 11 rolls of 120 or 620 size per quart can be developed, as claimed by manufacturer.) Considered to be a good developer, but relatively very high in price. (For example, *Kodak D-76* and *Kodak Microdol*, both of which are *A-Recommended* developers, cost 36c and 51c, respectively, for the 1-qt. size.) 3

Abridged Cumulative Index of Previous 1953 Consumers' Research Bulletins

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Indicates that listings of names or brands are included.

Fluoridation of Drinking Water

years. The propaganda in favor of fluoridation has received such impetus from the U. S. Public Health Service, using the resources of the federal government for propaganda in behalf of the program that the other side of the question has had small chance to be heard.

An interesting article entitled *The Truth About Fluoridation*, by James Rorty, appeared in *The Freeman*, June 29, 1953, which emphasizes that the program urging fluoridation is premature and that the campaign methods of its proponents are questionable. Mr. Rorty sums up effectively the case for the opposition to the Public Health Service's program and discusses

the various hazards involved in the use of fluoridated water that its proponents have sought to ignore, concluding:

In vain, finally, do critics of the fluoridation program demand an answer to the \$64 question. . . . Why all the hurry? The fact is that there isn't or shouldn't be any hurry. Parents whose children are "being denied the benefits of fluoridation", . . . can give their children these benefits, . . . without risk of harmful systemic effects, by having their children's teeth painted with fluoride by the dentist. Or if they discount the possibility of systemic damage, they can have the children swallow a fluoride tablet a day [a tablet designed to provide the equivalent of the 1 to 1.5 ppm. water fluoridation program], thereby accurately controlling the dosage, which is impossible when drinking water is fluoridated. . . .

Copies of the article are available in reprint form at 10c the copy, 12 copies for \$1, from *The Freeman*, 240 Madison Ave., New York 16.

Filters and "Conditioners" for the Water Supply

QUESTIONS are occasionally asked regarding water filters, for which there is a real need in some communities. Promoters and salesmen very commonly make false claims for these devices. Some of the units, for instance, are claimed to remove acid and iron from the drinking water, but a filter does not do that; its sole function is to remove *suspended matter*, which may make the water cloudy or muddy in appearance.

If the filter contains activated carbon, it can have some effect upon taste and odor, but this effect does not last long and, with ordinary usage and customary lack of care, the filter may become a breeding place for bacteria rather than a means for removing them. (Experts say that the removal of bacteria from the public water supply is an academic question in most communities and that the common claim of filter manufacturers that their device removes bacteria will be made to scare consumers into purchasing, rather than being really based on facts.)

One maker offers what is asserted to be a "lifetime supply of pure, sparkling, delicious water," but a new filter unit which is priced at \$3.50 will be required after some 300 gallons of water have been used for drinking, making coffee, tea, etc., which is equivalent to about 1 cent per gallon of filtered water. The initial cost of an average home installation is around \$50. The purchase of a filtering device for home use is not recommended unless it is strictly on a basis of "full refund" in case it turns out not to be effective in providing the degree and type of purification claimed, and if it should prove that replacement of filter elements is too costly.

If a filter manufacturer or salesman claims removal of acid or iron from the water, it will be best not to consider purchase of the appliance. (For control of iron in water [by conversion to a soluble form], see February 1953 CONSUMERS' RESEARCH BULLETIN, top of page 29.)

CR has received many letters in the last few months regarding various methods of "con-

The best general rule is that when a product is offered to you with persuasive advertising which makes special claims for quality or unusual characteristics, or is sold by interesting and appealing 'demonstrations,' and the product is one where technical questions are involved, it is wise for the consumer who does not have qualified sources of technical information at his disposal to take the position that he is not interested in a product unless and until the promoter's claims are supported by proof, in the form of detailed, signed reports of technical tests conducted by engineers, physicists, or chemists of skill and competence in the field of science or technology in question.

If a report is furnished for examination, be sure it proves the points claimed in the advertising: that it is based upon laboratory tests or analyses by qualified professional experts, not any sort of personal approval or testimonial; that it does not deal with irrelevant matters, or does not merely assert that the product lacks certain harmful properties. . . .

To sum up, the consumer who cannot afford to waste his money should demand proof of all essential points before he buys—whenever there is any reason to doubt the claims, or whenever the item is of an unusual or unprecedented sort or the advertising or the salesman "promises a lot." If the proof is not forthcoming or if it is not satisfactory and thoroughly convincing, it will be the part of wisdom to keep your money.

Part of an article in CR Bulletin, April 1953, page 27.

ditioning" or modification for the water supply in the home. One of these calls itself a "non-chemical" method for "treating" hard water. The makers of these appliances, when they are supposed to work without regeneration or other manipulation by the purchaser or a service agency, are never clear about what the so-called

Advantages Claimed (without Proof or Offer of Proof) for a Typical "Water Treatment" Device

1. Takes out old scale — no more hard scale in water system.
2. Hot water more cheaply.
3. Thorough cold-water rinsing.
4. No scum in drains.
5. Better odor and taste.
6. Lessening of water stains on glasses.
7. Less upkeep expense.
8. Improves appearance of skin and hair.
9. Less pitting of metal.
10. Garden soil improved in texture.

"conditioning" of the hard water consists of. The devices are sold by sales literature which goes in strongly for pseudo-science in its explanations. Catalytic agents, paramagnetic elements, and the like are discussed in language which *seems* learned, but nevertheless makes no sense to the professional chemist or water supply expert. One device claimed to prevent the scaling of pipes, but when a test was made no difference could be seen, whether the water was treated or untreated. No difference in favor of the device was found in a test carried out to measure the claimed effect in minimizing corrosion. One device was said to prevent the growth of algae in water. This claim was tested and found to be untrue. At least one manufacturer who has figured that a device with no moving parts and no known means of operation might have a certain weakness from the standpoint of sales appeal, embellished his product by furnishing an electrical instrument, a meter connected to a battery; this gives a reading and thereby leads observers to think that something important is going on.

A number of these water conditioning devices have a characteristic in common in that the claims that are made are not *subject to verification* by chemical experts. The sales literature

and sales talk, if the device is pushed by personal salesmanship, deal with the subject in vague pseudo-scientific terms such that one gets an *impression* of performance that cannot be shown in practice. The promoter of one of the devices recognizes this and invites the customer to "feel" the difference in the water (presumably, if the difference cannot be felt, it is the purchaser's fault) or he may boil the water and "feel" the steam by rubbing the fingers together; this steam is asserted to have a different feeling from that produced by water which has not been through the conditioner. Sales literature includes such statements as: Makes water satiny smooth and gentle to clothes, dishes, hands, and hair; Makes water feel and taste beautifully soft. There is even a claim that the "treated" water will heat up faster!

Devices of this sort are even sold for preventing scale and corrosion in automobile radiators. The same basis of judgment applies for these as for those which "treat" the water supply of homes and manufacturing plants, and the claims may be disregarded for the same reasons, unless and until proof based upon careful and responsible work in a scientific testing laboratory, of known integrity, is offered in evidence.

Anyone who wishes to go into technical aspects of the question may refer to the article entitled So-called Electrical and Catalytic Treatment of Water for Boilers, by R. Eliassen and H. H. Uhlig, in the July 1952 issue of the Journal of the American Water Works Association, which will be available in large public libraries and in many university libraries. Reprints of this article were available for a time to members of the Association but are no longer offered. This article does not mention any of the water-treating devices by name, but it does discuss many of the claims in terms of chemical and metallurgical science and the expert knowledge of water works engineers.

The Water Conditioning Research Council at 111 W. Washington St., Chicago 2, an organization sponsored by dealers supplying and servicing soft-water equipment, has recently made available a processed report of six pages (double-spaced typewriting) on the *Evis* water conditioner carried out by a qualified chemical testing laboratory. The test did not support the manufacturer's claim of reduced scale from piping, improved performance of water in washing of hair and cotton clothing, or improved removal of soil with soap. Anyone who has more than a casual interest in the subject or who is considering purchase of an improbable or ques-

tionable water-conditioning appliance will find it worth while to obtain a copy of the full report at \$1, from the Council. The National Better Business Bureau will, upon written request accompanied by a stamped self-addressed envelope, supply a report discussing the claims made for the *Evis* appliance and other matters related to it.

CR is informed that a university research laboratory has tested one of the "water conditioners," using five methods: a soap test, an ion exchange test, a radioactivity test, a physical test, and a spectrographic test. The results of this test program indicated that the conditioner did not affect the water passed through it.

Readers are reminded of the article in the April 1953 issue of *CONSUMERS' RESEARCH*

BULLETIN, page 27,* in which persons inclined to buy a device for which technical claims are made are advised to *write the manufacturer for proof of performance*. "Water conditioning" devices are one of many classes of items sold to ultimate consumers regarding which a request to the maker to supply such proof is particularly in order; if proof is offered, submit it to an acquaintance who is an engineer or scientist, or submit it to CR (supplying postage for return if its return is desired). Even though written in highfalutin language with scientific terms duly sprinkled in, the material furnished in the sales literature will in many cases be found to contain no proof of performance at all to a person with technical training in science or engineering.

*See also page 17 of this issue, column 2.

Selfix Hooks

SMALL ITEMS, such as clothes, towels, kitchen utensils, etc., can be hung by means of *Selfix Hooks*, which can be easily attached to a smooth surface without use of nails or screws, by a coating of glue on the back. The hooks are put into place by rubbing the coating on the back with a wet finger until the glue is softened; the hook is then pressed firmly into position and the pressure maintained for at least one minute. The instructions say that the hook should not be used until the adhesive has been allowed to set for 24 hours.

The *Selfix Hooks* held 10 pounds continuously for 6 weeks and 17 pounds (2 pounds over their claimed capacity) for short periods after being up 3 months when used on such surfaces as wood, enamel-coated metal tile, and wallpaper. When one was first used on glass, it held 17 pounds satisfactorily, but 6 weeks later the hook fell off when it was touched. Three hooks applied to stainless-steel tile all fell off after one day under very small pressure. *Selfix Hooks* attached to rough plaster and cinder block also fell off of their own weight, almost immediately after being applied. One pulled off a painted smooth plaster wall (under a load of 16 pounds) after being up one day, taking the paint with it, and two others pulled off an unpainted, smooth plaster wall under light loads, pulling off some of the plaster. This could be a matter of real practical importance in the home since, with any glued-on hook or hanger, the appearance of a wall could be badly marred by the paint, paper, or other coating coming off and leaving an unsightly bare spot. (The manufacturer warns

against using his device on painted, calcimined, varnished, or waxed surfaces, unless the coating is scratched away to the bare wood or plaster underneath, but does not warn against their use on rough plaster.) One hook that was attached to wallpaper held its load satisfactorily after being exposed to 75 to 77 percent relative humidity for 8 days, but the paper to which the hook was attached tore, leaving an unsightly spot. Another hook was attached to wood, and exposed to about 90 percent relative humidity for three days. The glue lost all strength, and became so soft in that time that the hook could be pulled off the wood very easily.

The *Selfix Hooks* are available in several colors, and in single, double, and triple hook styles.

B. Intermediate

Selfix Hooks (Selfix Products Co., 30 E. Adams St., Chicago 3) 25c for two single hooks, 39c for two double hooks (sold in variety chain and mail-order stores). Convenient, and easy to apply. *Selfix Hooks* will work satisfactorily on surfaces of wallpaper (if the hook is to be permanent and the load on it will be small), enameled metal tile, and wood. However, there is bound to be a risk, especially when the humidity is high, that the hook may come off when used on paper, bringing some of the paper with it. Not usable in places where there may be high humidity, of the order of 85%, over a long period, say several days or weeks. Instructions inadequate in that they did not indicate the limitations of application of the device, and did misrepresent its effectiveness in some respects.

Three-Dimensional Sound

"Binaural" and "stereophonic" sound systems are receiving excited attention in high-fidelity circles nowadays. The serious lover of home-reproduced music will want to have some idea of the meaning of these terms, the means of attaining the "three-dimensional" effect, and its probable future effect on his present investment in high-fidelity sound equipment.

So far as human perception of sound goes, there are four basic and measurable qualities which, when fully stated, will completely identify any single sound. These are frequency, intensity, duration, and direction. The most complicated sound may be resolved into a combination or sum of different tones of different intensities existing over different periods of time. But any complex sound may originate from many different places at the same time, and the ears are able to distinguish these sources, and separate them as to direction.

No matter how many microphones are used to pick up a sound transmission, or how many loud-speakers are used simultaneously to reproduce the sound, the *direction* of each sound with respect to the listener cannot be determined at the point of reproduction if a single channel is used to transmit the sound from the origin to the listener. The one channel may be one microphone, one "chain" of amplifiers, one broadcasting station and one amplifier and speaker, or it may be one track on a phonograph record. In any case, direction is lost, and cannot be restored by any use of multiple speakers or amplifiers. But if the sound *originates* from or reaches the listener over two or more channels simultaneously, then in some degree direction-sense can be provided.

Three-dimensional sound recording today always involves the use of two or more simultaneous transmissions, on simultaneously recorded tracks of a tape recorder or on simultaneous tracks of a phonograph record (or two radio transmitters). Simultaneity must be maintained at all times within a very small fraction of a second; indeed, an error in synchronization of as little as *one-thousandth of a second* will seriously impair the effect.

"Binaural" transmissions require only two channels and are made with two separated microphones, located wherever listening is judged best at the point of recording; each channel is brought to a separate reproducer, and in order to preserve the direction effect, the transmissions must never be "mixed," even in the air where the listener hears the sound. With "binaural" transmissions loud-speakers cannot be used successfully, but with headsets each of whose earpieces is individually actuated by one of the two channels, the realism is astonishing.

"Stereophonic" transmissions are made with a minimum of two channels, and preferably with three or more. The microphones are more widely separated and sample the curtain of sound which exists between the orchestra and the listener in the studio; then, through each of the several channels, an associated amplifier drives a separate loud-speaker located approximately in proportion to the position of the respective originating microphone. A noticeable degree of directional effect may be attained with a two-channel "stereophonic" system; three or more will produce quite spectacular effects. Any "binaural" recorder may be used to make "stereophonic" recordings of two channels, and, of course, any "stereophonic" recorder may have two of its channels used in the making of a "binaural" recording. The difference is in the placement of the microphones and in the use of headsets ("binaural") or loud-speakers ("stereophonic").

It will be seen at once that at this time "three-dimensional sound" is a subject strictly for the big-movie-theater operator, and the experimenter and hobbyist. A very few two-track records have been made, and in some parts of the country two-channel radio transmissions have been made, using one FM and one AM radio station simultaneously. Delicate and precise adjustment is required in setting up a dual phonograph pickup arm for use with the very few existing two-track records, and in every case, two complete sets of amplifiers and speakers are required. One of the costlier professional two- or three-channel tape re-

corders might very well be used in experimentation, with results which would be exciting to hear, but it can hardly be expected that many lovers of fine sound for the home, except those with much money and time to spare, would wish to make their own special multi-channel recordings.

The motion picture industry has shown the most excited interest in "3-D" sound, for use

with one or another of the new "3-D" film processes, and after a year or more of shake-down and experiment it may be expected that high-quality three-dimensional sound will begin to make its appearance with motion pictures, as it has already with *Cinerama* productions. Techniques that are not even in the developmental stage as yet will have to be worked out before three-dimensional sound will be practical for home installations, in our opinion.

Binoculars for Those Who Must Wear Spectacles

SOME PERSONS need special eyecaps on binoculars in order to be able to use them satisfactorily when they wear glasses. Their eyeglasses may either have an astigmatism correction, or the regular correction may be so large as to be outside the range of the eyepiece focus of the binoculars. For such persons and all those who wear glasses when walking, hunting, or bird watching, and who would wish to get the full benefit of the wide field of a binocular instrument, special flat eyecaps are available from some binocular manufacturers.

Use of the special eyecaps when glasses are worn gives the normal field of view, and the special eyecaps, moreover, are helpful where binoculars must be shared with other persons who have normal vision or are not wearing glasses. The instrument can be left adjusted to the zero marks on each eyepiece and will then work for persons who do not wear glasses and at the same time

be in correct adjustment for those who wear properly-fitted spectacles.

The shallow eyecaps are not usually a stock item, but a number of makers will supply them on request. Kollsman Instrument Corp., 80-08 45 Ave., Elmhurst 73, N.Y., makers of the *Sard* glass, charge \$4.50 to \$5 per binocular for shallow eyecaps, but there is no charge when the original eyecaps are returned to the manufacturer. Bausch & Lomb charge 50 cents each for special caps which are interchangeable with the regular deep eyecaps. They also offer tight-fitting light-excluding rubber eyeguards which help to give a brighter image. These are available for all but 7 x 50 mm. glasses, at \$1 per pair. A large New York optical instrument dealer (E. B. Meyrowitz, Inc., 520 Fifth Ave. at 43 St., New York 36) charges \$6 a pair for shallow eyecaps, which they make to order to fit any given make of binocular.

Corrections and Emendations to Consumers' Research Monthly Bulletins

Oven Cleaners
Page 26
May '53 Bulletin

In the listing on *Easy-Off*, the reference to a plastic brush applicator being supplied applies only to the 98c size. The brush is not included in the package priced at 69c. According to the manufacturer, the cleaner and brush combination at 98c will be available for an

indefinite period; the brush itself is available at a list price of 29c.

Automobile Listings In several of the automobile April '53 Bulletin listings under the head SPECIFICATIONS, the piston displacement was inadvertently shown as in sq. in., which should be changed to read cu. in. (cubic inches).

Plastic or Mastic Paints for Houses

THERE have been many requests recently for information about new kinds of plastic or mastic coatings, so called, which, when applied to one's house, are supposed to end the painting problem forever. The topic is of such general interest that the Forest Products Laboratory at Madison, Wisconsin, has prepared a special bulletin containing a brief discussion of coatings of this type.

According to the Forest Products Laboratory, the paint or coating material itself is not usually sold to the public or to painting contractors. The person wishing his house treated must hire a firm of "applicators" to put it on, although they (the "applicators") may then hire a commercial spray painter to do it. Those selling the service offer to put the coating over wood siding, shingles, shakes, masonry, or metal, even if the surfaces have already been painted. Sales have been made in many cases to people who had had repeated failures of ordinary paints on their homes, and who, therefore, have lost confidence in paint and assume that an entirely new type of material may be the answer to their problem. *The consumer should remember that the fact that something is different does not necessarily mean that it is better.* The difference will very often be of such nature as to make it far worse rather than better.

The advertising commonly insists that the material is not a paint, although it is applied by a spray gun just as paint often is. Sometimes it is referred to as "plastic siding," and is said to be 10 or 15 times as thick as a coat of paint, but actual coatings that have been examined have usually been only four to five times as thick as a good coating of house paint. Experienced paint men know that the chances of good paint performance decrease rapidly as the thickness of coating increases beyond about 5 thousandths of an inch. There is no sound reason to suppose that a thick coating of any plastic material will solve the problems of the house that has been difficult to paint any better than the thin paint coatings previously used.

Another point deserving careful consideration

Protect surface LESS THAN THE COST OF PAINTING
A STEEL-LIKE COATING THAT **FULLY GUARANTEES** NOT a Paint
BEAUTIFIES • INSULATES • AND PROTECTS **NO MORE** WATERPROOF
Gives new life **PAINTING** FIRE-RETARDANT
It keeps out moisture. **LASTS** many years longer than any paint job. **TERMITE-PROOF**
It keeps out moisture. **REMOVES FUEL** **FUSED ON**
MODERN SCIENCE'S \$500.00
GREAT DISCOVERY GROSS PROFIT
THAT LASTS A LIFETIME

in connection with thick "plastic" coatings is that the wood of the house may be suffering from the penetration of storm water or of accumulations of moisture which is very often condensed against the inside surface of the exterior walls during the winter. It is very likely that the addition of a thick impervious coating to the siding on such a house would hasten and render much worse the decay and structural damage that are caused by the moisture accumulation within the walls.

CR has noted that there are various misleading claims in the advertising besides the one of extraordinary durability with no maintenance problem. For instance, the promoters are very likely to claim a high degree of thermal insulation and complete immunity to weather, fire, decay, and termites. One even claims his product "reduces your fuel bill much more than insulation!" Such claims are, of course, grossly misleading to the average consumer, as is also a claim that use of the products would eliminate the future need for painting. Some also are claimed to cost less than paint, but a house that a reliable painting contractor estimated would cost \$150 to paint with one coat or \$200 for two coats would cost over \$600 to be covered with one of the plastic coatings. In another case \$1000 was charged for a job that if painted would have come to about \$450.

Sellers of mastic paint coatings have been so aggressive that the Los Angeles Better Business

Bureau is organizing a county-wide effort to crack down on them. That Bureau reports that "mastic paints are the No. 1 source of complaints received by the Bureau from home owners. Many paint promoters are not contractors, merely farm out the work, and are financially irresponsible. Some claims on durability and finish are fantastic."¹

The St. Louis Better Business Bureau, commenting on the aggressive selling of the new paints, notes that none of the mastic paint products known to them have any established record of performance, and none have satisfied the Bureau with laboratory tests of adequate nature proving that the new mastic paints will have durability, permanence, waterproofing, and other qualities claimed for them. The Bureau also objects to the claim of the paints being fused or pressure applied, remarking that the actual pressure is probably less than would exist if a paint-brush were used. The promised 10-year guarantee was not delivered in another case, when the job was finished.

The St. Louis Bureau notes that once you sign a release submitted by the contractor, your notes are sold, and they must be paid even if the work is unfinished or unsatisfactory to the purchaser.

Banks have had difficulties financing paint jobs of this kind due to the high-pressure selling methods and improper application of coatings by dealers and contractors. A bank to which an inquiry had been addressed commented as follows in regard to one company: "Not a depositor of ours and information which we have received is unfavorable. It is, therefore, suggested that caution be used in any dealings with the company." Our readers should perhaps be reminded that this sort of service regarding questionable business firms will often be furnished free or at a moderate charge by banks to depositors who are old and established customers of the bank, and whose discretion can be trusted.

Anyone planning to purchase a plastic or mastic coating job should do so, if at all, only with extreme caution and the expectation that performance may very likely turn out to be unsatis-

factory. Even if the material were good—which remains to be proven—there would still be grave doubt as to the desirability of having paint applied by one of the type of operatives already mentioned. Ask the salesman to *show you a satisfactory job that is 5 to 10 years old*. If he can't, you will be wise to pay no further heed to his sales talk. Advertising literature makes reference to the use of such coatings by the armed services during the war, but such claims are misleading, for *there was no use of such materials under circumstances that would furnish evidence of their ability to give lifetime service on the exteriors of wood houses*. One promoter claimed that his product "was severely tested under every condition and withstood all destructive forces; didn't crack, peel, or break down"; that it is "an amazing new siding material" that "eliminates outside house painting." Competent technologists know of no way in which the ability of an entirely new product to do all that is claimed for the plastic coverings could be reliably determined by either the maker or by qualified testing laboratories *in the few years that have elapsed since they are alleged to have been invented*. One type of coating for which the claim of 30 to 40 years' life is made can offer no record of successful application that would prove any sort of long life as a coating on houses. Consumers should always have grave doubts about radically new products that are offered to the public with claims of outstanding or superior performance before technical data to prove their worth have been published in professional journals.

Guarantees are often mentioned, but the home owner should bear in mind that if the applicator is not in business and under the same corporate name five or ten years from now, a ten- or twenty-year guarantee would be of no use at all to the purchaser. Not only must the applicator stay in business, but he must be the sort of person who will make good on the guarantee, and one should consider the likelihood of being able to get redress in such a situation if most of his jobs turned out to be failures — as we think will very likely be the case — and there were therefore many demands on him for restitution. Advertisements for certain of these coatings proclaim "FULLY GUARANTEED" in big black type, but the fine print underneath mentions nothing about *permanency*. They are "guaranteed" only to fireproof or make fire retardant, to waterproof, insulate and beautify, but *it doesn't say how much, or for how long*.

The Forest Products Laboratory experts suggest that "House owners with troublesome paint problems should consider carefully the position in which they will find themselves if the claims

¹There are other painting rackets, including a gang of over 30 members, some of whom pose as farmhouse and barn painters and apply a kind of paint that "washes off in the first good rain." These people are said to "clean up" to the extent of \$400 to \$500 a day.

Another is known as the "model home" racket, which is very active at the present time. Itinerant promoters claim they have just come into a territory and would like to use a particular home as a model to demonstrate their work. They offer a tempting commission for every sale made in the area and a bonus for every customer the victim recommends. The idea is that the commissions which will flow in will pay the cost of the homeowner's own house-coating job, so that he expects to get the work done for nothing. Actually, he doesn't collect at all, and he gets a poor paint job. The obligation of the customer to pay for the work is set forth in a contract, but the obligation to do a good job is not mentioned, except orally. Some victims have been stuck for as much as \$1500 by this racket.

made for the plastic covering prove no more reliable than the much less extravagant promises that were made for the ordinary house paints they have been using. If the removal of 5 mils [5 thousandths of an inch] of paint is now considered prohibitively expensive, what will be the cost later on of removing an additional 20 mils of plastic material?"

Houses which are painted with ordinary paint and not too frequently (say every six or eight years on the average) have given a good account of themselves, and many have been standing for many decades without encountering any serious trouble with peeling and scaling. The troubles in recent years with the regular or common types

of paints have come partly from faulty conditions in the houses themselves (moisture passing through the walls), and from using paints of poorer quality than those formerly furnished. There is no short cut to the correction of painting problems. The home owner will simply have to do what he can to learn what has caused the failure of his paint coating of the customary kind, and correct the trouble by procedures known to be reliable on the basis of long experience by qualified investigators.

Those who wish to do so may obtain a copy of the release on Plastic or Mastic Coverings for Exterior Walls of Houses by writing to the Forest Products Laboratory at Madison, Wisconsin.

Smoking a Cause of Cancer

THE March 1952 issue of the A.M.A. Archives of Industrial Hygiene and Occupational Medicine presents a paper on Studies on Lung Cancer in Relation to Smoking, by Dr. Ernest L. Wynder. Dr. Wynder's article is a careful discussion of the relationship of smoking to lung cancer, and it is his opinion that the great majority of persons with primary cancer of the lung are persons who have been considered heavy smokers for a long period. He found, moreover, that "whenever a male patient suspected to have cancer of the lungs gave a negative smoking and occupational history, it was rare indeed for him to have cancer of the lungs, in spite of so-called typical clinical evidence."

Among Dr. Wynder's conclusions is the statement that "City life, even though it may expose man to substances suspected of being carcinogenic [cancer-causing], cannot account for the recent increase in lung cancer. It appears that a male patient without exposure to either tobacco or certain industrial agents has small chance of having cancer of the lungs. . . . Conversely the more a given patient has been exposed to these substances, the greater seems his chance of having primary cancer of the lungs." He suggested that "Possible carcinogens in tobacco should be studied with the same care and resourcefulness that have been applied to the study of coal tars in recent years."

Following Dr. Wynder's paper, Dr. Kanematsu Sugiura presented a brief discussion referring to tumors induced in test animals painted with a distillate from tobacco heated in a retort.¹

The editor of the A.M.A.'s journal added the following comment: "There was exhibited a copy of the 1948 report of the Tobacco Insect Conference sponsored by the United States De-

partment of Agriculture, containing recommendations for use of arsenical insecticides in control of tobacco pests. It would appear likely that the considerable amounts of arsenic found in tobacco products result from the use of arsenical insecticides."

* * *

A good deal of recent research other than that of Dr. Wynder has indicated that there is a real association between smoking and cancer of the lung, though there is some difference of opinion among investigators as to whether the case against tobacco has been fully proved. The latest findings indicate that among men between ages 45 and 64, the death rate from lung cancer is negligible in non-smokers, but that there are three to five deaths a year per thousand among smokers. Since there is a higher lung cancer mortality in urban areas, there is reason to believe that some cause other than tobacco smoking may be a factor (e.g., factory and other smoke, acids, and exhaust gases in the air). In the United States, a marked rise in lung cancer in a 10-year period has been found to parallel an increase in the smoking of cigarettes.

Consumers' Research has had the benefit of a very informative correspondence with a physician with experience in this field. Purely as a surmise, and without being in a position to furnish evidence, he suggests that the effect may be due to cigarette smoking but not to the to-

¹In a letter responding to an inquiry from Consumers' Research, Dr. Sugiura made the comment that his experiments "indicate that tar prepared from tobacco is a very mild carcinogenic substance" [cancer-causing, but only mildly so]. (One investigator, however, has suggested that tar prepared from cigarettes in a manner simulating human smoking habits as contrasted with tar from tobacco alone may show a much higher degree of carcinogenic quality. Conclusions on this await publication of new experimental studies.)

bacco; he suggests as a possibility that the harm may be related to something in the processing of the tobaccos or in the paper. One puzzling element in the situation is that while there has been a great increase in the number of women who smoke, and while nearly all of the women smokers smoke cigarettes, the incidence of lung cancer in females has not increased proportionately. In other words, the growing trend toward lung cancers seems so far to be limited to men. There is a possibility that this has come about only because relatively few women in the age bracket at which cancer incidence is high have smoked for 20 or 30 years as have many men in the same age group. There are indications, nevertheless, that as other types of disease tend to come under control through advancing medical research, cancer will soon be the leading cause of death in the United States.

According to a recent item from Denmark in the Journal of the American Medical Association, recent articles in medical literature have stressed the increasing frequency of lung cancer which, contrary to expectation, affected the middle-aged rather than the aged. An editorial published in the Danish Medical Association's journal emphasized the tendency of relatively young men to have this form of cancer, and the prediction was made that eventually lung cancer will exceed in its incidence all other forms of cancer combined. The further important suggestion is made that there should be a thorough investigation of the composition and properties of tobacco smoke. This, of course, might lead to means for reducing the grave hazard that now almost certainly accompanies the habit of smoking excessively.

Food is Better for You

AN Associated Press dispatch regarding an address of Dr. Maxwell M. Wintrobe before the convention of the Alumni Association of the College of Medical Evangelists in Los Angeles says that the use of high potency vitamins and "shotgun" food supplements which include copper, molybdenum, and other minerals, is a waste of money. People would do better to buy meat and vegetables in the meat or grocery store and would in that way get all the minerals and supplements which they need to eat. "Food is much more palatable, and food contains as much of these things as the

average person needs—which is a very small quantity."

There is no justification for the general use of such substances as vitamin B-12, folic acid, ascorbic acid, and copper found in the all-inclusive or "shotgun" type of vitamin and mineral supplement tablets, or for the use of such mixtures in the treatment of anemia. Dr. Wintrobe estimated that when people take "shotguns" for the treatment of anemia they pay as much as \$120 a year or even much more for such supplements, whereas, if iron were the substance needed, \$5 would buy all they would require.

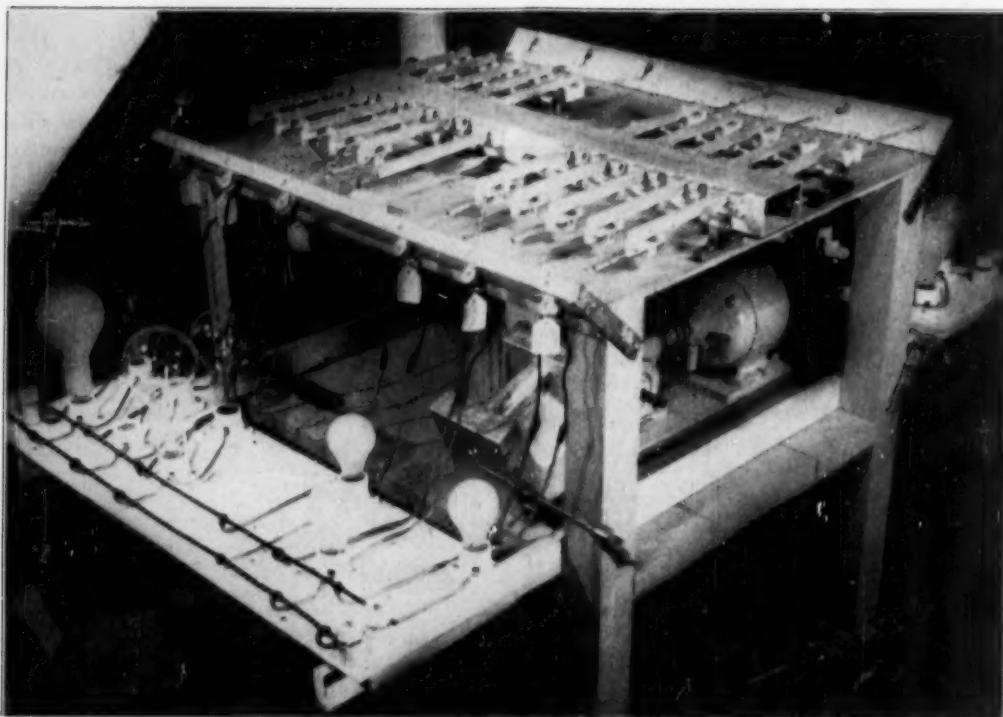
A Federal Official Warns of the Dangers of Growing Governmental Power

BY PERMISSION of the author and the Saturday Evening Post, we are reprinting the following, which are the essential parts of a letter from Commissioner Lowell B. Mason, of the Federal Trade Commission, to the magazine, printed on page 4 of its issue of February 28, 1953:

... for some time I, as a public official, have been disturbed at the apparent indifference of the businessmen in America to the gradual encroachment of bureaucratic power. This power is not used to restrict popular rights—the right to vote, to speak your mind, to worship as you see fit—ah, these rights are the common popular rights that all will defend. . . .

But for the businessman I am afraid [the Consti-

tution] has been reinterpreted so you can't recognize it. And all because indifference to tyranny rests only on those curtailments of liberties that concern just a few people at a time. Who cares if the right to be deemed innocent until proven guilty is taken away? None but the very small minority who stand in the prisoner's dock. Who cares if the protection of a judicial system that holds all men innocent unless they be proven guilty, be abridged? In America not the 150 million who do not fall under the jurisdiction of those agencies of government dealing with business habits. . . . Not even the more than 100,000 corporations and firms engaged in interstate commerce in America who know that there are so many conflicting laws, interpretations and regulations that no matter what they do, they can be found guilty of some technical transgression of the law.



Multiple-purpose testing machine set up for testing twelve canopy switches at a time.

Canopy Switches

A CANOPY SWITCH is usually operated by a cord which pulls on a ball-type chain. These small, compact switches are for mounting in the "canopy"—a thin metal shield covering the base—of a lighting fixture and control the lamp (or sometimes a small appliance) directly at the fixture instead of from a wall switch. Though small and inconspicuous, they often give trouble, either by burning off contacts or by failing mechanically. They are one of a number of small electrical items in the household which can be the cause of expense and inconvenience, often far out of proportion to the cost of the item itself. When a canopy switch fails, an electrician will certainly charge not less than \$2.50 for installing a new one, plus the price of the switch. Because of the time, inconvenience associated with having an appliance or light out

of use, and expense involved in replacement, the moderate cost of the switch itself would be a matter of no particular importance if only one could be sure of its having a long life. Because of the cost to repair, a householder is likely to neglect replacement of the switch for a period of time which can involve an element of danger—as where a stairway or cellarway lamp is concerned.

Underwriters' requirements call for a statement on every switch of its current-carrying capacity (commonly called "rating"), and a purchaser should carefully note these ratings when buying so that he will be sure to purchase a switch with ample load-carrying capacity for the lamps it is expected to turn on and off. One 100-watt lamp takes about one ampere, with lamps of larger and smaller wattage roughly in

proportion. The electrical load on each switch tested was a tungsten lamp or lamps giving an operating current equal to about one-half the rating of the individual switch. Some of the switches would certainly have shown a shorter life had they been operated on full load, or on an overload, as may often happen in the home. The starting current of a tungsten lamp is, for a brief period, several times as high as the current which it takes when it has come up to temperature. (The letter "T" in a rating indicates a switch recognized as suitable for the control of tungsten-filament lamps on either a.c. or d.c.) Regularly available canopy-switch ratings are as follows: 1 ampere—250 volts, 3 amperes—125 volts; 3 amperes—250 volts, 6 amperes—125 volts.

Homemakers should bear in mind that switches of this sort are not at all suited to equipment such as electric irons or other heat-producing appliances, as they are unable safely to break the large currents which go with equipment such as heaters, toasters, waffle irons, and roasters taking several hundred to one thousand watts or more. The same would apply, of course, to any motor-driven appliance where the motor takes a substantial amount of current, such as a refrigerator, pump, clothes or dish washer, or other power appliance.

For CR's test, three switches of each brand (all of the pull-chain type) were mounted on the testing machine at a 45° angle, so that the motion of the machine simulated the actual hand use of the switch and created wear of the pull chain moving over its guide or funnel under conditions approximating normal use of the device. Failures occurred in a number of ways; most common was internal mechanical failure, the next most common was chain breakage inside the switch. If the switch were overloaded or operated at full load a good deal of its life, failure would very likely occur by burning or fusion of the contacts. This defect is often found in canopy switches which have been removed from service. The *Fulton* switches appeared not to have been lubricated by the manufacturer; all samples but one of the other makes showed signs of grease.

A. Recommended

Levolier (McGill Mfg. Co., Inc., 1150 N. Campbell St., Valparaiso, Ind.) 85c. 6 amp-125v (Tungsten Rating), 3 amp-250v. Listed by Underwriters' Laboratories, Inc. All-brass housing. Two of the three samples were well lubricated, the other was

not. The good construction of this switch was evident by comparison with the others examined; it was the only switch in the group that was so assembled that it could be removed readily from its case for inspection, and thereafter restored to operating condition. Its parts were of good size, and well adapted to their use. Two switches of the three tested failed mechanically at 97,000 and 68,000 cycles but a third was still operating at 115,000 cycles. Average performance of this switch in the test was more than double the performance of the best of the other three makes tested.

B. Intermediate

Circle F (Circle F Mfg. Co., Tyler and Monmouth Sts., Trenton, N.J.) 30c. 3 amp-125v, 1 amp-250v, 1 amp-125vT. Listed by Underwriters' Laboratories, Inc. Brass and plastic housing. Internal failures by breaking of a helical spring at 14,000, 15,000, and 36,000 cycles.

Leviton (Leviton Mfg. Co., 236 Greenpoint Ave., Brooklyn, N.Y.) 30c. 3 amp-125v, 1 amp-250v, 1 amp-125vT. Steel and plastic housing. Internal failures by breaking of a contact at 37,000, 42,000, and 49,000 cycles.



Canopy switches.

C. Not Recommended

Fulton (Fulton Electric Mfg. Co., Mount Vernon, N.Y.) 41c. 6 amp-125v, 3 amp-250v. Listed by Underwriters' Laboratories, Inc. Steel and plastic housing. On this make there were two cases of breakage of the chain within the housing, possibly due to sticking of the mechanism, at 830 and 7000 cycles; the third failed at 13,000 cycles. The switch gave much the poorest performance of the four makes tested. The current and voltage marking was so poorly executed that it could be read only under the most favorable illumination.

Laundry Marking Pens

LAUNDRY marking pens and inks are used in many households to date-mark household linens and to identify by name or initials household textiles that are sent to the laundry. Anyone who has children who are sent to camp in the summer will find the need a particularly pressing one along about this time of the year.

There are a number of different marking materials that are available to the householder. There are laundry marking inks (some of which must be "set" with heat), ball-point pens, felt-nibbed pens, and marking devices consisting of a bottle of ink with a felt "pen" as part of the bottle cap. How convenient any one of these will be for a given user will depend in part on her temperament.

In CR's test, the investigators judged the *Magic Marker* bottle-and-felt-"pen" device and the *Taubman* ball-point pen easy to use. Found most time-consuming was the *Applegate's* ink, principally because it was necessary to apply heat with an iron to develop the black color and "set" the marking. Furthermore, it was necessary to make repeated applications on the same marking until the ink penetrated through the fabric, as the instructions directed. One of the ball-point pens tested by CR, the *Traum*, came in a set which included the pen containing *Carter's Special Ink*, and 10 yards of *Irontex Tape*. The markings were made directly on the tape, which was then ironed onto the fabric and adhered by a thermoplastic resin. This, though not difficult to do, was a little troublesome, because of the number of operations required. Other pens and inks tested were judged intermediate with respect to convenience in use.

Laundry marking inks and pens were used in the same way as they would be by the housewife. Four kinds of fabrics representing those which are commonly marked in the home were used: birdseye cotton diapers, cotton sheeting, linen toweling, and nylon. In general, it was found more difficult to make dark, even markings on the cotton diaper and the linen toweling than on the muslin and nylon fabrics. On the

other hand, the ink in the *Magic Marker* and the *Carter's Ink* smeared on the nylon and muslin. When the marked samples had been laundered 17 times, the differences in legibility between the markings were plainly noticeable. The results of the test are shown in the photograph.

Unfortunately, the sets that were easiest to use did not make the most durable markings. It was found that the markings made with the *Applegate's Silver Base Ink* were most permanent, and held up the best through repeated launderings on all fabrics tested, with one exception. The marks on the nylon turned yellow after the very first washing. In general, the ink on pieces of cloth which were laundered in a soapy wash water to which *Clorox* hypochlorite bleach had been added showed noticeably more fading than the samples washed in a solution of synthetic detergent or built laundry soap without added bleach. Almost any fabric used in the home can reasonably be expected to be washed in a bleach solution at some time or other, and it is believed that for most consumers the results of the tests on samples washed in the bleach solution should be given greatest weight.

A good rule to follow is to launder fabrics before marking them. Some fabrics contain a sizing which will keep the ink from being effective or one which may cause the fabric to develop a pink color in the area around the marking. Because some of the inks contain a coal-tar dye ("aniline"), which is toxic, it is a good rule also to launder and press fabrics *after* marking. For the same reason, it is best to avoid contact of ink with the skin and to be careful not to inhale the vapors of the inks when doing the marking operation. (An aniline dye used in marking diapers in a hospital has caused the death of several infants through contact with the marked fabric.) Some inks carry a warning about the presence of the toxic dye but unfortunately some laundry markers which contain it are not so labeled; thus caution would dictate laundering all ink-marked fabrics before they are used.

A. Recommended

Applegate's (Silver Base) Indelible Ink (Applegate Chemical Co., 5630-32 Harper Ave., Chicago 37) \$3 for 1 can (1/4 lb. net). Somewhat difficult to apply; required heat to bring out black color. Very good permanence.

Carter's Indelible Cloth Marking Outfit (The Carter's Ink Co., Boston) 50c. Set contained *Carter's Indelible Cloth Marking Ink*, wooden disk-and-ring "stretcher," pen, and penholder. Good permanence.

* * *

The inks used in the following contained a coal-tar dye; as a safeguard, it would be good practice to wash and iron marked fabrics before use (see text).

Dri-Flo 67 Laundry Marker (Dri-Flo Mfg. Co., 642 E. 10 Mile Rd., Hazel Park, Mich.) \$1.95. A pen with a felt "nib," and a bottle of ink and dropper (used to fill the pen with ink). Good permanence.

Magic Marker (Speedry Products, Inc., New York 6) 69c. An ink bottle with a felt "nib" as part of the cap. Presence of coal-tar dye not indicated on label.

Traum Name Tape Set (David Traum Co., Inc.,

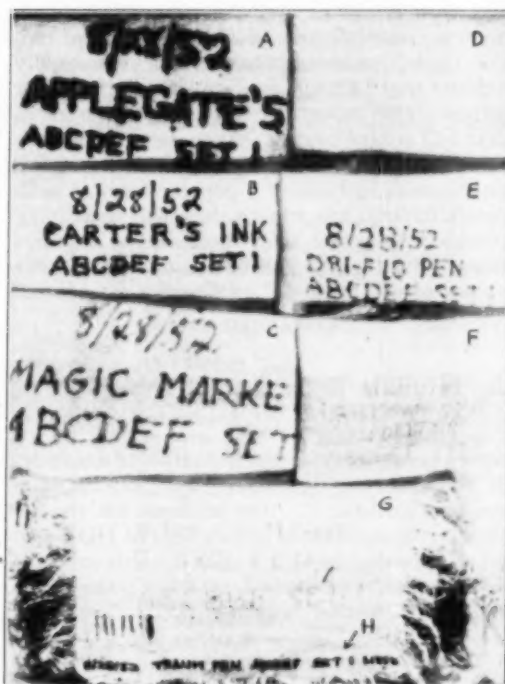
N.Y.C.) \$1. Set contained a ball-point pen containing *Carter's Special Ink*, and 10 yd. of *Irontex Tape*. Markings on the tape remained practically unchanged, and tape remained attached to all materials except the nylon, throughout 17 washings. (The tape came off the nylon after only 2 launderings.) The markings which were made with the pen directly on the birdseye cotton, muslin, linen, and rayon fabrics did not hold up very well, and, if used in this way, pen would warrant a B rating. Refill cartridges for pen available from manufacturer at 25c each.

B. Intermediate

Taubman Laundry Marking Pen, Style T-5 (Samuel Taubman, 1 W. 34 St., New York 1) \$1. Ball-point pen. Ink contained a coal-tar dye; marked fabrics should be laundered and ironed before use (see text). Fair permanence.

C. Not Recommended

Arnold Ball Point Laundry Marking Pen F-23B (Arnold Pen Co., Inc., P.O. Box 150, Petersburg, Va.) 50c. No longer manufactured. Poor permanence.



Marked linen towels after 17 launderings in an 0.2 percent solution of Tide. The markings on the set of towels washed in Super Suds were of similar legibility.

The samples are identified as follows: A—Applegate's; B—Carter's Indelible; C—Magic Marker; D—Arnold; E—Dri-Flo; F—Taubman; G—Traum; H—Traum, on marking tape.



Marked linen towels after 17 launderings in an 0.2 percent solution of Super Suds to which a hypochlorite bleach (Clorox) had been added.

Off the Editor's Chest

(Continued from page 2)

vision as he sees a scene outdoors. One of the first all-color pictures in Cinemascope will be *The Robe*, which is expected to have better story and production values than the earlier 3-D "quickies." Polarized glasses will not be needed for viewing this type of picture.

The 3-D pictures that require the use of glasses have to date largely depended on the novelty of hurling balls, spears, tomahawks, and other objects at the audience apparently in the hope that making the customers jump out of their seats will compensate for poor story values and amateurish production techniques.

The systems using the wide screen have presented much better pictures from the cinema or dramatic standpoint. *Shane*, for example, was a beautiful western that portrayed the wide sweep and motion characteristic of a first-class production. Such pictures, however, though visually very satisfying, do not impart the stereoscopic effect of the 3-D techniques.

Whether the new developments are just a flash in the pan or will become a permanent form of motion picture presentation depends entirely on consumer reaction. The disadvantages of the 3-D system from the standpoint of the local distributor are many; the cost of installation is high; and the technical problems are complex, for perfect synchronization of the two films required for 3-D pictures is absolutely essential. One trade paper has pointed out that during

one showing of the *House of Wax* the two prints were out of synchronization by one frame for two days. As a result, the eyes of many patrons were so strained that they suffered headaches, while others became nauseated. In another showing of a 3-D film out of synchronization, some patrons became so annoyed that they demanded and received refunds of the admission fees they had paid.

In the ratings of motion pictures that appear each month in CONSUMERS' RESEARCH BULLETIN, we have presented the ratings of 3-D films solely on the basis of the various critics' appraisal of their literary and cinema quality. The technique of presentation has not been evaluated because at the present time it is in a stage of experimentation and gradual development and is mainly of interest as a novelty. If and when one or more of the various techniques become established as an accepted form of motion picture presentation, we shall undoubtedly indicate that fact by some sort of symbol in our ratings. One subscriber has already written us that 3-D is here to stay. At present writing, we think he may be a bit optimistic. If the 3-D technique is to become a popular form of mass entertainment, the story values will need to be considerably better than those of the first pictures—which might well be characterized in the phrase of one critic as "mediocrity magnified."

DDT Now Found in Human Body

A STUDY of the presence and amount of DDT in human fat has been carried out by three investigators: G. W. Pearce, A. M. Mattson, and W. J. Hayes, Jr., of the Communicable Disease Center, Savannah, Georgia. The work was reported in the September 5, 1952, issue of *Science*. It was found that substantial quantities of either DDT or a degradation product of DDT called DDE were present in specimens of the fat. The sum of DDT and DDE in the samples ran from 3.6 to 54.6 ppm., though the quantities would have been only one-third as large on the average had DDT alone been looked for.

The authors note that the DDT presumably

occurs because of the contamination of a number of foodstuffs, but they add, in the cautious manner of scientists: "...the evidence for the occurrence of substantial proportions of DDE suggests that the possible health hazards involved in the widespread use of DDT need to be reconsidered and further investigated."

These findings indicate that many entomologists and toxicologists are not justified in their belief that there is no particular hazard in the extensive use of DDT in situations that bring it into contact with food and beverages and with air breathed by persons in the home, office, restaurant, and factory.

Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines — some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Box Office, Cse, Daily News (N.Y.), The Exhibitor, Harrison's Reports, Joint Estimates of Current Motion Pictures, Motion Picture Herald, National Legion of Decency, Newsweek, New York Herald Tribune, New York Times, New York World-Telegram & Sun, Parade Magazine, Release of the D.A.R., Preview Committee, Reviews and Ratings by the Protestant Motion Picture Council, Time, Times Herald (Washington, D.C.), Variety (weekly), Weekly Guide to Selected Motion Pictures (National Board of Review of Motion Pictures, Inc.).

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), or C (not recommended) on its entertainment values.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure
biog—biography
c—in color (Technicolor, Cinecolor, Trucolor, Magnacolor, Vitacolor, etc.)
car—cartoon
com—comedy
cri—crime and capture of criminals
doc—documentary
dr—drama
fan—fantasy
hist—founded on historical incident
mel—melodrama
mus—musical
mys—mystery
nov—dramatization of a novel
rom—romance
sci—science fiction
soc—social-problem drama
trav—travelogue
war—dealing with the lives of people in wartime
wes—western

A	B	C	
—	8	3	Abbott and Costello Go to Mars...com A
—	1	4	Affair with a Stranger...dr A
—	2	2	Affairs of Dobie Gillis, The...mus-com A
1	3	1	Alaskan Eskimo, The...doc-c AYC
—	6	6	All Ashore...mus-com-c A
—	5	—	All I Desire...dr A
—	3	7	Ambush at Tomahawk Gap...mel-c A
—	1	3	Arena...wes-c AYC
—	4	—	Arrowhead...mel-c A
1	7	2	Assassin, The (British)...cri-mel A
—	—	10	Babes in Bagdad...adv-c A
—	1	4	Bad Blonde (British)...cri-mel A
—	2	7	Bandits of Corsica, The...adv A
—	8	11	Battle Circus...war-mel A
—	1	3	Battles of Chief Pontiac...hist-mel AYC
1	4	—	Bear Country...doc-c AYC
—	3	5	Beast from 20,000 Fathoms, The...sci AYC
—	3	3	Bellissima (Italian)...dr A
—	6	—	Below the Sahara...doc-trav-c A
—	3	—	Big Break, The...dr A
—	1	9	Big Frame, The...cri-mel A
—	8	8	Blue Gardenia, The...cri-mel A
1	11	4	Bright Road...dr AYC
—	2	16	Bwana Devil...mel-c A
—	13	3	By the Light of the Silvery Moon...mus-com-c AYC
12	5	—	Call Me Madam...mus-com-c AYC
—	9	2	Castle in the Air (British)...com AYC
—	2	3	Cinderella (Italian)...mus-dr AYC

A	B	C	
—	7	7	City Beneath the Sea...mel-c A
—	4	2	City that Never Sleeps, The...cri-mel A
1	7	8	Clown, The...dr A
—	5	4	Code Two...cri-mel AYC
—	2	5	Column South...mel-c AYC
—	9	2	Confidentially Connie...com AYC
—	7	7	Count the Hours...mel A
—	3	3	Counterfeiters, The (Italian)...mel A
—	3	3	Cow Country...wes A
—	—	—	Crash of Silence (See Story of Mandy, The)
1	1	1	Cruel Sea, The (British)...nov AYC
—	4	3	Cry of the Hunted...cri-mel A
1	4	5	Curtain Up (British)...com A
1	9	—	Dangerous When Wet...mus-com-c A
—	8	5	Desert Legion...mel-c AYC
3	6	6	Desert Rats, The...war-dr AYC
—	7	8	Desert Song, The...mus-com-c AYC
2	12	2	Destination Gobi...war-dr-c AYC
—	—	7	Double Confession (British)...cri-mel A
—	2	8	Down Among the Sheltering Palms...mus-com-c A
—	3	4	Dream Wife...com A
—	1	2	Duel Without Honor (Italian)...dr A
—	1	3	Egypt by Three (Egyptian)...dr A
—	5	—	Elizabeth is Queen (British)...doc-c AYC
—	3	5	Fair Wind to Java...adv-c A
—	8	1	Fanfan the Tulip...adv AYC
—	2	8	Farmer Takes a Wife...mus-com-c A
—	2	8	Fast Company...com A
—	5	5	Fear and Desire...war-dr A
1	6	5	5,000 Fingers of Dr. T, The...fan-c A
—	4	—	Forever Female...com A
—	1	8	Fort Ti...war-mel-c AYC
—	4	2	Fort Vengeance...mel-c AYC
—	6	3	49th Man, The...mys-mel AYC
—	—	4	Four Sided Triangle, The (British)...sci A
—	5	1	Francis Covers the Big Town...com AYC
—	—	5	Gambler and the Lady (British)...cri-mel A
—	6	5	Girl Next Door, The...mus-com AYC
—	2	5	Girl Who Had Everything, The...dr A
—	4	8	Girls in the Night...cri-mel A
—	10	3	Girls of Pleasure Island, The...com-c A
—	6	6	Glass Wall, The...mel A
—	5	1	Glory at Sea...war-doc AYC
—	6	1	Glory Brigade...war-dr AYC
—	2	6	Gold Town Ghost Riders...mus-wes AYC
—	3	—	Great Sioux Uprising...mel-c AYC
—	—	5	Guerrilla Girl...mel A
1	6	4	Gunsmoke...wes-c AYC
—	1	2	Hell is Sold Out (British)...dr A
—	12	5	Hitch Hiker, The...cri-mel A
2	6	—	Hoaxers, The...propaganda-doc AYC
—	1	4	Homesteaders, The...wes-c AYC
—	5	1	Houdini...biog-c AYC
—	1	9	House of Wax, The...cri-mel-c A
—	5	1	Hundred Hour Hunt (British)...mys-mel A
4	11	2	I Believe in You (British)...mel A
2	8	6	I Confess...mys-mel A
—	4	7	I Don't Care Girl, The...mus-com-c A
—	13	3	I Love Melvin...mus-com-c AYC
—	2	3	I'll Get You (British)...mys-mel AYC
5	12	1	Importance of Being Earnest, The (British)...com-c A
—	5	9	Invaders from Mars...sci-c AYC
—	3	2	Iron Mountain Trail...wes AYC
—	7	3	It Came from Outer Space...sci AYC

A	B	C		A	B	C	
1	6	1	It Happens Every Thursday. com A	—	2	4	Ramuntcho (French). dr A
—	5	5	Jack McCall, Desperado. wes-c A	—	3	3	Rebel City. wes AYC
—	4	2	Jalopy. com AYC	—	9	7	Redhead from Wyoming, The. wes-c A
—	4	6	Jamaica Run. adv-c A	—	5	3	Remains to Be Seen. mus-mel A
1	11	5	Jazz Singer, The. mus-biog-c AYC	—	2	2	Ride, Vaquero. wes-c A
—	11	5	Jeopardy. mel A	—	8	4	Ring Around the Clock (Italian). dr A
2	11	4	Juggler, The. dr AY	—	4	2	Roar of the Crowd. mel-c AYC
12	4	—	Julius Caesar (MGM produc- tion). dr AYC	—	4	4	Rogue's March. dr AYC
—	—	3	Jungle Girl. adv AYC	2	4	5	Rome, 11 O'Clock (Italian). dr A
—	10	2	Justice Is Done (French). cri-dr A	—	5	11	Ruby Gentry. dr A
—	5	1	Kansas Pacific. mel-c AYC	2	5	8	Salome. dr-c A
—	3	5	Keepers of the Night (German). dr A	—	3	6	San Antonio. wes A
—	7	5	Lady Wants Mink, The. com-c AYC	—	5	8	Sangaree. mel-c A
—	2	4	Landfall (British). war-dr A	—	1	7	Savage Frontier. wes AYC
—	6	2	Last of the Comanches. wes-c AYC	1	6	4	Savage Mutiny. mel AYC
—	6	2	Last Posse, The. wes A	1	6	3	Scandal at Scourie. dr-c A
—	7	2	Law and Order. wes-c A	1	6	3	Scared Stiff. com AYC
—	7	2	Lawless Breed, The. wes-c AYC	1	4	—	Sea Around Us, The. doc-c AYC
—	5	—	Let's Do It Again. mus-com-c A	—	2	3	Sea Devils. adv-c A
5	9	1	Lill. mus-com-c AYC	—	2	1	Secret Conclave, The (Italian). biog AY
1	7	4	Little World of Don Camillo, The (French). dr A	1	6	5	Seminole. mel-c A
1	7	3	Lone Hand, The. wes-c AYC	—	2	9	Serpent of the Nile. adv-c A
—	1	2	Love Island. adv-c A	2	7	2	Seven Deadly Sins (French). dr A
—	10	—	Luxury Girls (Italian). dr A	—	1	4	Sextette (French). dr A
—	6	4	Ma and Pa Kettle on Vacation. com AYC	13	4	—	Shane. wes-c AY
1	11	4	Magnetic Monster, The. sci AYC	—	11	5	She's Back on Broadway. mus-com-c AY
1	7	3	Mañatma Ghandi—20th Century Prophet. doc-biog AY	2	6	1	Silver Whip, The. wes AYC
—	2	7	Man Behind the Gun, The. mus-mel-c AYC	—	3	—	Singing Taxi Driver (Italian). mus-dr A
—	7	10	Man in the Dark. mel A	—	5	4	Siren of Bagdad. mel-c AY
10	7	1	Man on a Tightrope. dr A	—	5	3	Skipper Next to God (French). mel A
—	4	3	Man with the Grey Glove, The (Italian). mus-dr A	—	3	3	Slight Case of Larceny, A. com A
—	3	4	Marika (Viennese). mus-com A	1	8	5	Small Town Girl. mus-com-c AYC
—	2	1	Marksmen, The. wes AYC	1	1	11	Sombrero. mus-dr-c A
—	4	3	Marshal of Cedar Rock. wes AYC	—	8	—	Son of the Renegade. wes AYC
2	3	—	Martin Luther. doc-biog A	—	4	6	South Sea Woman. war-mel A
—	1	3	Maverick, The. wes-c AYC	15	1	—	Split Second. mys-mel A
1	4	2	Melba. mus-biog-c AYC	2	5	—	Stalag 17. war-com A
2	6	10	Member of the Wedding, The. dr A	2	8	4	Star, The. dr A
—	6	10	Mississippi Gambler, The. mel-c A	1	3	2	Star of Texas. wes AY
—	1	6	Monsoon. dr-c A	—	9	4	Stars are Singing, The. mus-com-c AYC
—	5	2	Moon Is Blue, The. com A	3	—	—	Stolen Identity (Austrian). cri-mel A
6	8	3	Moulin Rouge. nov-c A	4	9	2	Story of Mandy, The (British). dr A
—	6	3	Murder Will Out (British). mys-mel A	2	12	4	Story of Three Loves, The. dr-c A
2	11	4	My Cousin Rachel. nov A	1	7	—	Strange Deception. war-dr A
4	8	3	Naked Spur, The. wes-c A	—	3	4	Sun Shines Bright, The. dr A
—	5	2	Naughty Martine. com A	—	1	8	Sword of Venus. adv A
1	8	4	Never Let Me Go. mel A	—	7	7	System, The. cri-mel A
1	11	4	Never Wave at a WAC. com A	—	6	4	Take Me to Town. mus-dr-c A
1	13	3	Niagara. mel-c A	—	7	7	Tall Texan, The. wes A
—	2	2	No Holds Barred. com A	—	6	—	Tangler Incident. mys-mel AYC
—	1	2	Of Love and Bandits (Italian). mel A	1	9	6	Taxi. com AYC
1	12	3	Off Limits. com AYC	—	1	6	That Man from Tangier. mel A
—	3	2	O.K. Nero (Italian). com A	—	3	3	Three Dimension. doc-c AYC
—	4	4	Old Overland Trail. mus-wes AYC	1	9	3	Thunder Bay. mel-c AY
—	3	3	On Top of Old Smoky. mus-wes-c AYC	—	1	2	Times Gone By (Italian). dr A
—	2	8	One Girl's Confession. mel A	3	11	2	Titanic. dr A
—	1	3	Pack Train. wes AYC	—	7	3	Tonight at 8:30. dr A
—	3	2	Paris Express, The (British). mys-mel-c A	7	7	3	Tonight We Sing. mus-biog-c AYC
—	6	2	Pathfinder, The. nov-c AYC	—	6	4	Torpedo Alley. war-mel A
12	1	7	Penny Princess (British). com-c A	—	8	3	Treasure of the Golden Condor. adv-c AYC
—	1	7	Perilous Journey, A. mel A	—	1	5	Triorama. doc-c AYC
7	8	1	Peter Pan. car-fan-c AYC	1	13	3	Trouble Along the Way. com A
—	1	4	Phantom from Space. sci AYC	—	3	—	Twonky, The. sci AYC
1	8	8	Pickup on South Street. cri-mel A	—	3	5	Vanquished, The. war-dr-c A
—	2	3	Pimpinel Svensson (Swedish). com AYC	—	1	6	Volcano (Italian). dr A
1	7	3	Pony Express. wes-c A	2	5	1	War of the Worlds, The. sci-c AYC
—	9	—	Port Sinister. mel A	—	3	—	What Price Innocence? (Italian). dr A
—	4	5	Powder River. wes-c A	—	5	3	Wherever She Goes (Australian). mus-dr AYC
3	8	4	President's Lady, The. hist-dr A	—	2	3	White Lightning. dr A
—	2	7	Prince of Pirates. adv-c A	—	4	1	White Witch Doctor. mel-c AYC
—	9	—	Problem Girls. soc-dr A	1	2	—	Wide Boy (British). cri-mel A
7	3	—	Queen Is Crowned, A (British). doc-c AYC	—	5	3	Winning of the West. wes-c AYC
—	2	7	Raiders of the Seven Seas. adv-c AYC	—	2	9	Woman They Almost Lynched, The. mus-mel A
				2	11	4	Young Bess. hist-dr-c AYC
				—	1	3	Young Chopin (Polish). mus-biog A

The Consumers' Observation Post

(Continued from page 4)

out of shape. It should be noted that the dresses examined by the N.I.D. were not inexpensive; they were priced at around \$30. Women should get some guarantee from the store at which they purchase such a garment, that it may be returned for refund if it does not dry clean satisfactorily.

* * *

PENICILLIN, which is one of the new antibiotics widely used for many illnesses, has been the cause of so many serious side effects that the Food and Drug Administration has taken action and has issued orders to manufacturers to include with all penicillin preparations warnings to doctors on how to avoid or meet untoward reactions. In the Journal of the American Medical Association, two physicians caution against the use of penicillin and other antibiotics for trivial infections, and suggest that the patient be questioned about his possible allergies before they are administered. Among the reactions suffered by patients treated with penicillin are hives, shock, unconsciousness, asthma, headache, dizziness, nausea, convulsions, and difficulty in breathing. There have even been cases of unconsciousness, followed by death, after administration of the drug. Penicillin obviously is something to be used with great caution.

* * *

NYLON TOOTHBRUSHES have been greatly improved in texture in recent years, according to one dental authority. He has found that brushes with small-sized nylon bristles placed close together in tufts of four are quite satisfactory and preferable in many respects to a brush with natural bristles.

* * *

SEVERE ERUPTIONS ON THE HANDS, wrists, and fingers may be caused by contact dermatitis, an allergic reaction to some object in frequent contact. In his new book, Contact Dermatitis, Dr. George Waldbott of Detroit discusses a number of cases in which contact dermatitis of the hands and fingers occurred with a number of patients who had a noticeable habit of reaching into something, such as a woman's purse, a man's briefcase, a



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trouser pocket, or even from grasping an electric iron handle. The cure is simply to avoid contact with the offending object, once it is spotted. Dr. Waldbott pointed out that the articles that are most frequently the cause of contact dermatitis include brown and black dyes found in dresses and suits, leather goods, furs, and gloves; in metals, such as nickel and chromium; in toilet articles, such as soap, fingernail polish, hair-setting fluids, and hair lacquer. While removal of the cause constitutes a major cure, relief can often be obtained by simple treatments.

THE FOOD FLAVORING AGENT, coumarin, which has been used in some imitation vanilla flavors, and as a fixative for other synthetic food flavors, has been withdrawn from sale by the manufacturers. Recent studies indicate that this substance, which has been used for some 75 years, has potential danger of damage to the liver. The experiments showing the possible toxicity of the substance were made on laboratory animals, and there is as yet no actual evidence of injury to human beings. Nevertheless, the flavoring agent has been voluntarily withdrawn from food use, or any use involving human consumption, by the manufacturers, although it will continue to be available for use in soaps and cosmetics. The Food and Drug Administration is currently running tests on coumarin and a number of other flavoring compounds.

THOROUGH COOKING OF PORK before it is eaten is a precaution well known to informed consumers. It is distressing, however, to discover that trichinosis (a disease primarily caused by the eating of infected pork) is occurring in the United States with disturbing frequency, according to the Journal of the American Medical Association. It is estimated that one out of every six persons in the United States harbors the parasite responsible for this disease. In connection with a nation-wide program for the control and elimination of trichinosis in man and animals, it is recommended that all consumers make certain that pork is thoroughly cooked before it is eaten; that state laws require all garbage fed to hogs to be thoroughly cooked, and that the shipping of uncooked garbage across state lines for the purpose of feeding swine be prohibited. The effectiveness of such measures has been clearly demonstrated in Canada and Great Britain, where the cooking of all garbage fed to hogs is required by law.

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Phonograph Records

BY WALTER F. GRUENINGER

Albéniz: Iberia Suite. L'Orchestre de l'Association des Concerts Colonne under Sebastian. Urania. \$5.95. Five imaginative, colorful Spanish pieces well played and satisfactorily recorded.

Beethoven: Quintet for Piano and Winds (Op. 16). Mittman, Schulman, etc. *Quartet for Piano and Strings* (Op. 16). Mittman, Eidus, Ricci, etc. Stradivari Records. \$5.95. Beethoven wrote the work for piano and winds and then rewrote it for piano quartet. Both are played here and both are dull but the quintet appears to suit the music better. Mittman brings little but technical skill to his task. The other players, with lesser parts, are satisfactory and so is the recording.

Brahms: Piano Concerto No. 1. Wührer with the Vienna State Philharmonia under Swarowsky. Vox. \$5.95. An introspective performance which is meritorious without "opening the gates of heaven." Fine recording except for a drop in pitch early in the third movement. . . . Preferable, however, is the record of Solomon with the Philharmonia Orchestra under Kubelik on HMV.

Brahms: Violin Concerto. Albert Spalding with the Austrian Symphony Orchestra under Loibner. Remington. \$2.99. Suave, agreeable playing by a distinguished American who died 6 months after making this record. Acceptable recording.

Cherubini: Symphony in D & Beethoven: Septet. NBC Symphony Orchestra under Toscanini. RCA Victor. \$5.72. Lesser works masterfully played and richly recorded.

Herbert: Selections from Naughty Marietta and The Fortune Teller. Philadelphia Orchestra "Pops" under Ormandy. Columbia. \$2.50. Luxurious production—big orchestra, good playing and recording.

Khachaturian: Piano Concerto. Margot Pinter with the Symphony Orchestra of Radio Berlin under Rother. Urania. \$5.95. Dashing performance, sufficiently tempered where the music calls for it. Satisfactory recording.

Liszt: Concerto No. 1 and Hungarian Fantasy. Claudio Arrau (piano) with the Philadelphia Orchestra under Ormandy. Columbia. \$5.45. Less bombastic, more musical performance than usual. Excellent sound.

Prokofiev: Symphony No. 7. Philadelphia Orchestra under Ormandy and *Lieutenant Kijé Suite*. Royal Philharmonic Orchestra under Kurtz. Columbia. \$5.45. Praiseworthy performance of easy to take Prokofiev. Recording of the symphony, outstanding; the suite, quite satisfactory.

Rodgers-Hart: On Your Toes. Nelson, Cassidy, Shelby, etc., under Engel. Columbia. \$5.45. Excellent recording and direction. The singing is no better, no worse than heard in most Broadway shows, which simply confirms the fact that show vocal standards are sad to contemplate.

Romberg: The Desert Song. Nelson Eddy, Doretta Morrow, Chorus, and Orchestra under Engel. Columbia. \$5.45. Perennial favorites beautifully sung and recorded.

Sibelius: Symphony No. 1. Royal Philharmonic Orchestra under Beecham. Columbia. \$5.45. Beecham and his men magnificently perform this Tchaikovsky-like symphony. Good recording.

Tchaikovsky: Piano Concerto No. 2. Margot Pinter with the Symphony Orchestra of Radio Berlin under Rother. Urania. \$5.95. A sound performance of a more conventional work than Tchaikovsky's popular *Concerto No. 1*. Satisfactory recording.

Tchaikovsky: Symphony No. 4. RIAS Symphony Orchestra under Fricsay. Decca. \$5.55. One of Tchaikovsky's best works is played with understatement (particularly the second movement) to the point where it begins to lose vitality. Wide range recording.

Wagner Overtures. Wurttemberg State Orchestra under Leitner and Munich Philharmonic Orchestra under Rieger. Decca. \$2.50. Solid performances and competent recording of the early concert overture to Faust and the everlasting favorite Tannhauser. Playing time: 25 minutes, which is exceptionally long for a 10-in. \$2.50 disk. Overall, very good value.

Deep River. William Warfield (baritone). Columbia. \$2.50. "Deep River," "Lindy Lou," "Dusty Road," "Water Boy," etc., sung with warmth and well recorded.

Flamenco. Carlos Montoya (guitar), Lydia Ibarrodo (mezzo). Remington. \$2.99. Eight pieces of Spanish gypsy and gypsy-like music. Montoya is a superb Flamenco guitarist who plays six solo numbers and the accompaniments for the two songs. Ibarrodo's highly trained, velvety voice may be too smooth for true Flamenco but it is lovely to hear. Excellent recording.

Orchestral Favorites, Vol. I. 3 Orchestras, 3 Conductors. MGM. \$4.85. "Roumanian Rhapsody No. 1," "Hungarian Rhapsody No. 2," "Dance of the Hours," "Danse Macabre," etc., played by British symphony orchestras. Uneven recording, mostly fair. Variable performances with more bull's-eyes than misses.

Russian Arias and Songs. Boris Christoff (bass). HMV. \$5.95. Three arias plus "Song of the Flea," "Volga Boatmen," and five other sure-fire songs. Rich, expressive voice—fine dramatic quality. Uneven recording with general quality of the voice good, background not always as good.

Spanish Music from the Court of Ferdinand and Isabella. Pro Musica Antiqua. EMS. \$5.95. Fascinating disk presenting 19 vocal and instrumental compositions (antique instruments) from about 1500. Very well performed and recorded.

Folksongs of Spain. Montero (soprano). Vanguard. \$3.85. Miss Montero's earthy voice and informal style suit the material. Winner of the 1953 Grand Prix Du Disque.

Gregorian Chants. Mt. Angel Seminary Choir. Gregorian Institute, Toledo, Ohio. Authentic performances of monodic sacred music. Particularly recommended for educational purposes.

Love Duets from Romeo and Juliet. Fenn, Manton, Hilgenberg (singers), and the Los Angeles Orchestral Society under Waxman. Capitol. \$5. Shakespeare's Act III, Scene V. Tchaikovsky started one duet and Tanieff completed it. Gounod's comes from his opera and is much the better. Refreshing, youthful sounding singing. Good recording.

Operatic Choruses. Chorus of the Wurttemberg State Theatre. Decca. \$2.50. Scenes from Fidelio, Rienzi, Der Freischütz. Well sung and recorded.

Virtuosi di Roma. Decca. \$5.85. Four charming old pieces for solo instruments and strings. Playing is extraordinarily good and the recording is wide range.